

REPORT

ASIA SHELTER FORUM 2022



November 28-30, 2022

• Dhaka, Bangladesh



Introduction

The Asia Shelter Forum (ASF) is an informal forum for exchange of ideas and lessons learned for humanitarian shelter and settlement practitioners in Asia and the Pacific. The Forum was established with the objective of coordination, collaboration, learning and sharing of experiences in shelter and settlements sector. The ASF aims to inform and provide updates on various on-going initiatives in shelter interventions in areas of disaster response, recovery, and preparedness. The ASF aims to address particularly identified needs based on successes and lessons learned during implementation in the field.

In the previous Asia Shelter Forums held in Thailand, Indonesia and Nepal, the workshops drew attention of government, international practitioners and donor agencies on the lessons and experience of recent disasters as well as the wider experience of shelter response in the region. The workshops were able to explore the best practices in achieving safe, adequate, and dignified implementation of shelter programs that supports community engagement, community driven shelter initiatives and for bringing global participants in an Asia Shelter Forum in November 2022.

The fifth Asia Shelter Forum was hosted by Bangladesh and with support from the Department of Disaster Management (DDM) of Ministry of Disaster Management and Relief (MoDMR) and other ministries of the Bangladesh Government. Caritas Bangladesh (CB) with technical support from CRS organized the event for the first time in Bangladesh. Under the Chairmanship of the Director General of DDM, a National Organizing Committee (NOC) comprising representatives from various Ministries and Departments of the People's Republic of Bangladesh, Caritas Bangladesh, and CRS coordinated with higher level officials and executives of the Government of Bangladesh, delegates of international countries, authorities of multilateral, and bi-lateral donors, and the representatives of different I/NGOs within and outside the country.

The fourth ASF 2022 was concentrated on “Resilient Shelters and Settlements” and the discussions focused on shelter response mechanisms, shelter recovery needs and shelter management learnings across the Asia region. The emerging issues in long-term shelter recovery of disaster-impacted people were at the core of the discussions in the ASF 2022.





November 28-30, 2022
Dhaka, Bangladesh

“Documented lessons learned and way forward”

**Asia Shelter Forum as the regional platform to exchange
innovative and localized housing solutions**



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Ministry of Disaster Management and Relief



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Report on Asia Shelter Forum 2022

**A Joint Publication of
Caritas Bangladesh and CRS Bangladesh**

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Abbreviations

ADB	Asian Development Bank
BBS	Build Back Safer
BD	Bangladesh
BRAC	Bangladesh Rural Advancement Committee
BDRCS	Bangladesh Red Crescent Society
BHA	Bureau of Humanitarian Assistance
BUET	Bangladesh University of Engineering and Technology
CB	Caritas Bangladesh
CBA	Community Based Approach
CBDRM	Community Based Disaster Risk Management
CBO	Community Based Organization
CCDB	Christian Commission for Development in Bangladesh
CDI	Caritas Development Institute
CHT	Chattogram Hill Track
CiC	Camp In-Charge
CoP	Community of Practice
CRS	Catholic Relief Services
CSO	Civil Society Organization
CTP	Cash Transfer Program
CVA	Cash and Voucher Assistance
DA	Development Assistance
DDM	Department of Disaster Management
DFID	Department for International Development
DM	Disaster Management
DoA	Department of Architecture
DRR	Disaster Risk Reduction
ECP	Environmental Country Profile
EED	Education Engineering Department
EWS	Early Warning System
FCDO	Foreign, Commonwealth and Development Office
FDMN	Forcibly Displaced Myanmar National
GCT	Group Cash Transfer
GIS	Geographic Information System
GoB	Government of Bangladesh
GRID	Green Resilient and Inclusive Development
HBRC	Centre for Housing & Building Research
HBRI	Housing & Building Research Institute
HCTT	Humanitarian Coordination Task Team
HFA	House for All



HI	Humanity and Inclusion
H&C	Homes and Communities
HUDD	Housing and Urban Development Department
ICDDR	International Centre for Diarrheal Disease Research, Bangladesh
IFRC	International Federation for Red Cross and Red Crescent Society
IOM	International Organization for Migration
ISCG	Inter Sector Coordination Group
ISDP	Integrated Housing Slum Development Program
JICA	Japan International Cooperation Agency
JUTIN	Jute to climate-resilient innovative shelter material
LGED	Local Government Engineering Department
MoCAT	Ministry of Civil Aviation and Tourism
MoDMR	Ministry of Disaster Management and Relief
MoFA	Ministry of Foreign Affairs
MoHA	Ministry of Home Affairs
NDC	National Defense College
NDRRMA	National Disaster Risk Reduction and Management Authority
NHSRP	National Housing and Settlement Resilient Platform
NOC	National Organizing Committee
NRA	Nation Reconstruction Authority
PRA	Participatory Rural Appraisal
PWD	Public Works Department
RHU	Relocatable Habitat Unit
RRRC	Refugee Relief and Repatriation Commissioner
SEEDS	Sustainable Ecological and Environmental Development Society
SMSD	Site Management and Site Development
SOD	Standing Orders on Disaster
S&NFI	Shelter and Non-Food Item
SSWG	Shelter and Settlement Working Group
TICA	Turkish Cooperation and Coordination Agency
TSA	Transitional Shelter Assistance
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNRCO	United Nation Residence Coordinator
VNDMA	Vietnam Disaster Management Authority
WASH	Water and Sanitation Hygiene
WG	Working Group

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Executive Summary

Asia Shelter Forum (ASF) is a regional forum initiated by shelter practitioners in 2015 in Bangkok that aimed to localize the UK Shelter Forum, global annual shelter meetings, and other global shelter forums. ASF aims to improve coordination, collaboration, and share learnings and best practices among countries in the Asia region by engaging governments, donors, development partners, shelter cluster mechanisms and humanitarian organizations and partners. ASF has followed the practice of forming an organizing committee within the designated host country comprising of leadership from the concerned government ministry. The same practice was followed for ASF 2022. Funds were allocated using a pool funding mechanism among stakeholders through the organizing committee.

Bangladesh hosted the ASF 2022 annual workshop at Hotel Pan Pacific Sonargaon in Dhaka from November 28th to 30th 2022, with support from the Bangladesh Department of Disaster Management (DDM) within the Ministry of Disaster Management and Relief (MoDMR) and other ministries of the Bangladesh government, Caritas Bangladesh (CB), Catholic Relief Services (CRS) and others. Under the Chairmanship of the Director General of DDM, a National Organizing Committee (NOC) comprising representatives from various People's Republic of Bangladesh government ministries and departments and international and local organizations provided support for planning and organizing the conference. Representatives participated from the following ministries, departments and organizations: Ministry of Disaster Management and Relief, Ministry of Foreign Affairs, Ministry of Civil Aviation and Tourism, Security Services Division of Ministry of Home Affairs, Public Workers Department, Department of Architecture and Housing and Building Research Institute under the Ministry of Housing and Public Works, Local Government Engineering Department, Ministry of Local Government, Rural Development and Co-operatives, and Caritas Bangladesh, the Bangladesh Red Crescent Society (BDRCS), CRS, the International Federation for Red Cross and Red Crescent Society (IFRC), Habitat for Humanity (HfH), the International Organization for Migration (IOM), United Nations High Commissioner for Refugees (UNHCR), United Nations Development Programme (UNDP), Turkish Cooperation and Coordination Agency (TiKA), and Japan International Cooperation Agency (JICA). Further, USAID, InterAction, UN-Habitat, and Global Shelter Cluster also provided support for organizing the event. CB acted as the Secretariat for ASF 2022 with the technical support of CRS. A pooled fund of US\$ \$94,145 was raised to organize a three-day international conference with the theme “**Resilient Shelters and Settlements**” with sessions focused on shelter needs and related long-term impact on disaster-affected families.

Major points of discussion included the learnings from shelter construction and management, learnings from Bangladesh on Rohingya refugees camp management, flood response in different parts of Bangladesh, shelter response mechanisms applied in various disaster events in Asia, and global efforts in shelter and disaster risk reduction (DRR) localization. Overall, the emerging issues in long-term shelter recovery of disaster-impacted people was at the core of the discussions in ASF 2022. The three panel sessions and five key thematic technical parallel sessions included 71 presentations, which encouraged greater collaboration and coordination among shelter practitioners.

The plenary highlighted the need for a structural secretariat to fill the gap in bridging government efforts with those of civil society and humanitarian actors. A discussion on the structural secretariat for Regional Shelter Cluster took place with the interested stakeholders which will be continued in the future to explore possibilities. The panellists representing five countries in Asia (Bangladesh, India, Nepal, Philippines, and Vietnam) suggested several mechanisms to respond post-disaster, including an area-based approach to forward support in disaster response, synergetic involvement of government bodies from provincial to local levels in response and recovery, a commitment from governments to ensure housing for all affected people, and ensuring that reconstruction undergoes proper settlement and land use plans.



A total of fourteen thematic parallel sessions were conducted using engaging, participatory methods. Presenters shared research on outcomes, case studies, best practices, challenges, and lessons learned focusing on reconstruction, recovery, capacity strengthening, localization, vulnerable beneficiaries, private engagements, social solutions, and technologies. Feedback was provided via Mentimeter surveys.

An emerging issue in shelter recovery that was discussed were sustainable approaches to shelter recovery in the early recovery period for disaster-impacted people. Points of emphasis included incorporation of innovations in shelter, promotion of green shelter, promotion of lessons learnt and collaborations, to apply the common learnings, and to strengthen the housing and shelter community of practice. The assembled development practitioners influenced the attention of the government and its stakeholders by highlighting the need to work constructively and to use their influence to strengthen regional learnings.

Through the rigorous discussions undertaken during the two days of ASF 2022, shelter recovery practitioners from various development partner organizations and Governments demonstrated their commitment towards emergency shelter response and multi-hazard housing recovery and resilience by strengthening collaboration to ensure safer and dignified shelter, settlement, and housing for affected families. Against the backdrop of the increased severity of natural disasters in Asia affecting the most vulnerable, the ASF conference brought together a total of 458 participants (315 in-person and 143 virtually) from across Asia and the Pacific including nine countries from the Asia continent and Four countries from other continents (Australia, UK, USA, and Kenya).

The two-day conference was followed by a field visit to Nagarkanda, Faridpur by the ASF delegates on November 30th, where they had the opportunity to see first-hand, the government of Bangladesh's shelter efforts through the flagship Ashrayan project showcasing scaling-up interventions targeting vulnerable landless families, including those affected by natural disasters. The participants also had the opportunity to talk to the local people and taste some local foods as well.

ASF aims to improve coordination, collaboration, and share learnings and best practices relating to shelter among countries in the region by engaging governments, donors, development partners, shelter cluster mechanisms, and humanitarian organizations and partners.

Bangladesh hosted the Annual Conference of Asia Shelter Forum 2022. The next Asia Shelter Forum will take place in 2023.

Introduction

This report documents the proceedings of the ASF 2022 Annual Conference organized during 2022 in Dhaka, Bangladesh. It includes the major highlights of the discussions, presentations during different thematic learning and sharing sessions, and the experience of experts and dignitaries in the forms of remarks and the final declaration.

2.1 Objectives

The three-day annual conference was aimed to draw on the lessons and experiences of recent disasters, responses, and the broader understanding of shelter practices in the region. The conference was held to explore best practices in achieving safe, adequate, dignified implementation of shelter & settlement programs that support community engagement through community-driven and market-based shelter initiatives.

The objectives of the conference were to:

- Bring together shelter and settlement practitioners across the Asia and the Pacific region for discussion and way forward on issues across the region
- Create a strong network of shelter Community of Practice (CoP) to enhance local capacity and innovations
- Share knowledge, experiences, and best practices in the shelter CoP at all levels (local, national, regional, and global)
- Advocate and promote the formation of a National Shelter Platform in each country to bring about effective coordination mechanisms amongst various shelter practitioners

2.2 Program Brief of ASF 2022

458 participants (315 in-person, 143 virtual) attended the conference. Of the in-person attendees, 20% were female and 80% were male participants, and of the virtual attendees, 27% were female and 73% were male who logged in from around the world in utilizing ZOOM and Facebook. . The ASF 2022 Annual Conference started with a welcoming speech by Mr. Sebastian Rozario, the Executive Director of Caritas Bangladesh followed by a presentation of journey to ASF 2022 in Bangladesh including a video message from ASF founders. The official inauguration of ASF 2022 was conducted by the Honorable State Minister of the Ministry of Disaster Management and Relief, Dr. Md. Enamur Rahman MP. Honorable Minister Dr. Rahman stated that the ASF is a great avenue for regional learning and sharing experiences to mitigate the vulnerabilities of disaster-prone countries. ASF upholds the broader vision of the government of Bangladesh related to shelter and settlements: **No one will be homeless and left behind.**

There were five technical panel sessions in the event.

- Coordination Mechanism and Local capacity
- Shelter and Settlements Innovation
- Shelter and Recovery Response
- Green, Resilient and Inclusive Development (GRID)
- Cash and Markets

Day 1 - Policy (November 28, 2022): The day was focused on sharing current shelter and settlements initiatives and vision on disaster management, best practices, lessons, and challenges on various shelter and settlements issues and interventions from Bangladesh. The session attempted to identify specific roles and responsibilities of government authorities, national organizations, academics, regional collaboration mechanisms, and action points on humanitarian response.

The sessions included discussion of regional government officials and presentations from the DDM, UN agencies, NGOs, and shelter-based experts from home and abroad. Day 1 also included keynote presentations from the Asia Regional humanitarian actors.

Day 2 - Practice (November 29, 2022): Day 2 was focused on sharing practices through presentations, parallel sessions, case studies, and open space sessions from countries within Asia and the Pacific region. All the sessions encouraged more collaboration amongst shelter practitioners in the region. The sessions also included plenary presentations from regional experts from government and humanitarian community from Asian countries, UN organizations, and others making recommendations for future disaster preparedness and response.

Day 3 - Field Visit Day (November 30, 2022): On the third day of the conference, participants took part in a Field visit to Faridpur district, 100+ km from the capital, Dhaka to visit the Ashrayan Project of the government of Bangladesh. This project aims to ensure housing for the landless and homeless people through the government initiatives to rehabilitate housing for the homeless and uprooted poor people. It is a model initiative in Asia to support a considerable number of habitats for the underprivileged, initiated by the hardship experienced by Sheikh Hasina, honourable Prime Minister of the People's Republic of Bangladesh.

3. Welcome and Inauguration Session

The event started with the seating of the Chairperson Md. Atiqul Huq, the Director General of the Department of Disaster Management, Chief Guest of the inaugural session of the ASF 2022 Annual Conference Dr Md. Enamur Rahman MP, Honourable State Minister for the Ministry of Disaster Management and Relief (MoDMR), Guest of Honor Md Kamrul Hasan (ndc), the Secretary for the MoDMR, Special Guest His Excellency Most Reverend Bishop James Romen Boiragi, the President of Caritas Bangladesh and Bishop of Khulna Diocese, and Mr. Sebastian Rozario, the Executive Director of Caritas Bangladesh.



3.1 Welcoming remarks

Mr. Sebastian Rozario, Executive Director of Caritas Bangladesh delivered the welcoming speech. He welcomed and thanked the participants of the conference. Subsequently, he reflected on the aim to improve coordination, collaboration, and share learning and good practices among countries in the Asia Region by engaging governments, practitioners, donors, partners, and humanitarian actors. He stated, "The whole event is shaped in a way to attract your interests and to encourage learning and sharing. We, the NOC, have put a lot of passion into shaping this conference. I believe that the conference will give all of us a scope to share ideas and lessons learned on shelter and settlement initiatives as per its motto. Furthermore, it will help in creating a stronger community of shelter practice across the region contributing to the global shelter forum." Emphasizing the importance of this forum he said, "I strongly believe that such a forum needs to be strengthened with an effective partnership and more robust collaboration with the local actors and organizations, so that we can work together towards rebuilding the lives of the vulnerable with dignity and ensure transformation and impact at scale." Mentioning the strength of Caritas Bangladesh in the Shelter Sector in Bangladesh he said, "Caritas Bangladesh has been a leading local actor in shelters and settlements and supported the disaster-affected families since 1970. As of now, Caritas Bangladesh has responded to a total of 111 disaster events in Bangladesh and constructed 255 cyclone shelters, 74 flood shelters, and constructed 818,519 low-cost houses all over the country, using a locally-led approach which is our core strength. We also developed various context-specific shelter designs for disaster-resilient shelters.



Caritas Bangladesh has been one of the first National organizations to have a Co-Lead position to the Shelter, NFI and Settlement Sector in Cox's Bazar and have also been elected as a chair of the Localization Technical Working Group at the National level, since 2020, under the Humanitarian Coordination Task Team (HCTT).

These key milestones enabled Caritas Bangladesh to be a catalyst to contribute to the Government of Bangladesh's 2030 SDG targets while continuously working around locally durable and sustainable solutions through a strategic partnership with universities and local actors." He ended his welcome remarks by thanking the Honorable State Minister, for his kind presence apart from his busy schedule, and honorable secretary of MoDMR and the Director General of DDM for their dynamic leadership and support in organizing this annual event.

3.2 Journey to the ASF 2022

The journey to ASF 2022 was jointly presented by Mr. Alexander Tripura from CB and Mr. Khondoker Salehin from CRS Bangladesh.

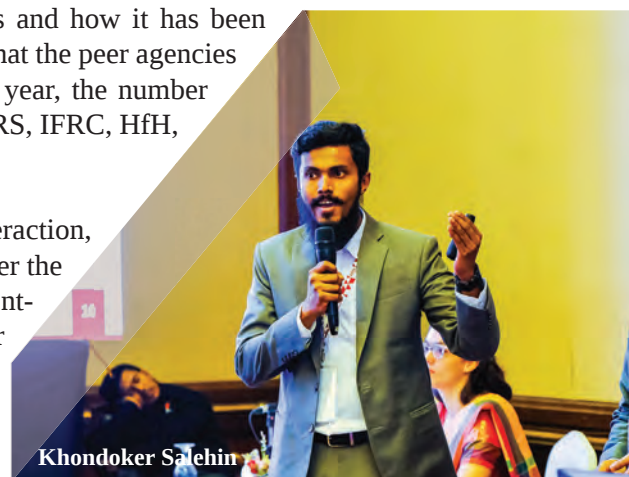
The session started with a three-minute video, which included a message from the ASF initiator team members and highlighted clips from previous years' forums.

Mr. Alexander Tripura, Head of Disaster Management, Caritas Bangladesh, shared an overview of the last four annual events of ASF leading up to the event in 2022. In the 4th Asia shelter Forum, held in Nepal in 2021, the organizing role was handed over to Bangladesh by the Nepal government. He touched on the formal handover on 27th February 2022, with DDM, MoDMR, and the formation of the National Organizing Committee (NOC) on 17th August 2022 under the leadership of DDM. He mentioned the involvement of nine government ministries and departments as part of the NOC along with ten peer agencies that have been actively involved.

Mr. Khondoker Salehin, Technical Advisor - Knowledge Management, CRS Bangladesh, mentioned how the event started with a small group of practitioners and how it has been getting bigger in proportion each year. He explained that the peer agencies were involved from the very beginning and for this year, the number increased with active involvement of CB, BDRCS, CRS, IFRC, HfH, IOM, UNHCR, UNDP, TIKA, and JICA.

Apart from the NOC, the event is supported by Interaction, UN Habitat, Global Shelter Cluster, and USAID. Under the leadership of DDM and MoDMR with lead implementing agency CB, much volunteer support from peer agencies, and a pull funding mechanism made ASF 2022 possible.

The development of the agenda for ASF 2022 was done in a participatory way and local practitioners were encouraged to participate to share their perspectives and expertise. Overall, under CB's implementation, tremendous effort was put into the 2022 event. He mentioned DDM's commitment to provide the space and support for a potential secretariat for ASF moving forward. He also expressed hope that there will be a conversation specific to Bangladesh through a Bangladesh Shelter Forum.



3.3 Habitat for Homeless and Shelter During Disaster: Bangladesh Perspective

Mr. Syed Ashraf Ul Islam, Focal point of shelter issues, from the Department of Disaster Management of MoDMR presented the major initiatives of the Bangladesh Government in the Shelter sector and highlighted the Prime Minister's Ashrayan project for the homeless and the landless. He showed a video clip highlighting the project and mentioned that such a project is exemplary in terms of the scale. By giving a background of shelter construction in Bangladesh, he shared that severe loss and damage to lives and properties occurred since 1970 and mentioned the appropriate approaches taken to protect the community. He said, "In order to save lives and property from the onslaught of the severe cyclone, the government, various Development Partner, and Non-government Organizations have constructed a good number of multipurpose shelters in coastal areas. For the ongoing construction of cyclone shelters, their maintenance, appropriate use, and operation of these centres, the Guideline on Cyclone Shelter Construction, Maintenance, and Management Policy-2011 have been developed by the Ministry of Disaster Management and Relief."



He further elaborated on the history of shelter construction in Bangladesh. The Public Works Department (PWD), being the pioneer, constructed 238 cyclone shelters during the period of 1974-1979. After that, the Education Engineering Department (EED), Local Government Engineering Department (LGED), and different NGOs such as CB, BRAC, World Vision, Save the Children, PRISM, CCDB, Friendship, and others have also constructed many cyclone shelters. After 2012, DDM constructed 362 new cyclone shelters and more than 200 flood shelters.

For the majority of the population to get the benefits of shelters, these shelters have been constructed using geographical information system (GIS) technology considering habitation, communication facilities, and distance from the nearest shelters. He explained few of the basic principles of shelter construction. He emphasized that shelters should be constructed according to the approved design of the master plan to ensure appropriate and multipurpose usage and with provision of emergency water supply, food, sanitation, and shelter space for livestock during disasters. All shelters should also consider gender, disability, and the needs of the elderly.

He further explained the use of these shelters - such as saving human lives and livestock and ensuring their sustenance during a disaster, and the physical safety of people who have no access to safe shelters, safeguarding basic assets needed by people to survive after a disaster and to carry out basic medical care during and after the disaster. He shared many prototypes of shelters of different shapes and sizes, including the Mujib Killa (an innovative idea to save livestock initiated by the Father of the Nation, Bangabandhu Sheikh Mujibur Rahman). Lastly, he shared how the Mujib Killas saved livestock during Cyclone Sitrang in disaster-prone areas.

4. Remarks from the Chair and Guests

4.1 Remarks from the Special Guest His Excellency Bishop James Romen Boiragi, Bishop of Khulna and President of Caritas Bangladesh

His Excellency **Bishop James Romen Boiragi** thanked the participants for continuing the good deeds around Asia and reflecting on the work he said, "Providing shelter during crises is the most challenging and complicated work. To those affected people, a shelter is not just a shelter rather it is a place to protect and survive amid many uncertainties. It is the root of generating a new life, community, regrouping, and rebuilding."

Referring to the ultimate goal of shelter programs that provide better quality and more locally appropriate, timely, and cost-effective shelters to affected households; better support for their immediate recovery; and long-term resilience against future disasters, he said, "We live in a sub-continent that is one of the most vulnerable areas in the world to climate-induced disasters. Almost every year, it has been experiencing one major disaster. We, the people and humanitarian actors, have innovated many durable coping mechanisms and stood beside the affected community with our capacity and resources. I thank all the nightingales in this new era of civilization for flaming the light of hope and life to the affected people who really need support to restart again. We can relieve the distress of the people in need, but we have limitations in defending them. Hence, it is high time to acknowledge that the conditions of world order that we desire in principle are not the de facto conditions of the world we live in." He urged the audience be advocates for affected people, their dignity, to ensure the identification and inclusion of socially excluded and vulnerable groups in our humanitarian actions, and to promote and advocate for local leadership of the local partners to ensure sustainability and impact at scale.



Emphasizing on the inter-connectedness of the humanitarian community he said, "I am calling you all for a revolution, a revolution of listening to the distressed and affected. Listening to them is not a waste of time but a path toward solidarity and humility in a more effective response. When we extend our support to the affected people it has to be joyful and not something which you do when you are ashamed of or are coerced. Some of us are more fortunate to discover the power of giving within ourselves, and some of us might discover it later."

He concluded his speech saying that "We believe shelter is not just a product but a process. The work of the people sitting in this room goes beyond simply providing tools and tents to help people cope in the short-term and involves enabling communities to improve their homes over time so they are better protected should another disaster occur. I also believe, the sharing and discussion of the next two days will help in extending unified, improved, and coordinated shelter support across Asia."

4.2 Remarks from the Guest of Honor Md Kamrul Hasan, ndc, Secretary of Ministry of Disaster Management and Relief, Government of the People's Republic of Bangladesh

Welcoming all the participants of the annual conference, Mr. Secretary described the disaster context of Bangladesh. He believes that the aspects of shelter and settlements are directly involved with the country's disaster response mechanism. Shelter and settlements play a vital role in helping to restore communities' dignity and to build their resilience to future shocks and hazards. Wishing the success of the annual conference, he stated that "I trust that this two-day annual conference along with a field visit will draw on the lessons and experiences of recent disasters and the wider experience of shelter response in this region."

The conference will explore best practices in achieving safe, adequate, dignified implementation of shelter and settlement programs that support community engagement for best shelter initiatives. I hope it will continue to foster sharing ideas and lessons learned on shelter and settlement initiatives as per its motto. The forum can also create a stronger community of shelter practice across the region contributing to the global shelter forum. I also believe that innovative ideas and best practices by sharing examples of participating nations in this Asia Shelter Forum can also enrich all the stakeholders."



Md Kamrul Hasan, ndc

Mentioning the causes of shelter damages, he emphasized constructing shelters in safe and secure places will generate a sense of safety during disasters among the affected people. He added that there has always been scope for the enhancement of design and technology for the construction of low-cost shelters by responsible agencies. The government is committed to further strengthening the existing shelter and settlements of Bangladesh during disasters. MoDMR has been constructing shelters such as flood shelters, cyclone shelters, and Mujib Killas. In

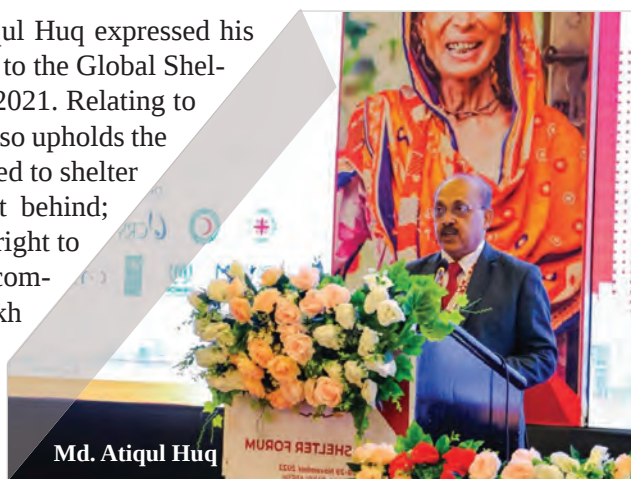
flood-prone and riverbank erosion-prone areas, the Government has undertaken projects to construct modern flood shelters. In addition, initiatives have also been undertaken to construct multi-purpose cyclone shelters in coastal regions and cyclone-prone areas. Moreover, the construction of Mujib Killa is also going on in full swing. "We are in a continuous process to explore more systematic, effective, context-specific, result-based approaches to reduce the vulnerability of the people to a range of shocks and stresses through proper shelter and settlements and disaster risk reduction strategies."

It is good to know that, he mentioned, many humanitarian organizations have been constructing shelters i.e., low-cost shelters for disaster-affected families, emergency shelters with other settlement facilities, and many designs of shelters have also been developed for different geographical regions in Bangladesh which can also be useful for the disaster affected people. However, he stressed that we must come up with innovative ideas to build shelters as the nature of disasters is changing over the course of time. To build a resilient nation as well as a resilient Asia, cooperation, and collaboration among the government and organizations is crucial. He concluded his speech by appreciating the initiative of the organizer, which he believes will create a strong network of shelter Community of Practice (CoP) to enhance local capacity and innovations in the region.

4.3 Remarks from the Chair - Md. Atiqul Huq, the Director General of the Department of Disaster Management, Bangladesh

The Chair of this year's annual conference Md. Atiqul Huq expressed his pleasure for representing the Bangladesh government to the Global Shelter CoP through the Asia Shelter Forum in 2020 and 2021. Relating to the theme of this year ASF, he mentioned that "ASF also upholds the broader vision of the government of Bangladesh related to shelter and settlements: No one will be homeless and left behind; everyone will get an address of their own and have a right to dignified shelter during any emergency, which has committed by our honorable Prime Minister Sheikh Hasina."

Mentioning the hosting of ASF for the first time in Bangladesh as a privilege for Bangladesh, he expressed his expectation that "Various country representations and issue-specific sessions will enhance learning by exchange of Shelter Program's good practices."



Md. Atiqul Huq

This conference will bring together shelter and settlement practitioners across the Asia Pacific region for discussion and way-forward on issues across the region. I hope that we will be able to create a strong network of shelter Community of Practice to enhance local capacity and innovations in this region."

He thanked CB, CRS, and other organizers for their support in organizing this annual conference in Dhaka, Bangladesh. Wishing the ASF annual conference a success, he concluded his speech.

4.4 Remarks from the Chief Guest - Honorable State Minister Dr. Enamur Rahman MP

The Chief guest of the conference started his speech by thanking the organiser for inviting him to this grand event. Mentioning the purpose of the platform he stated that "Bangladesh is one of the most disaster-prone countries in the world due to its geographic location and socio-economic condition. flood, cyclones, tidal surges, landslides and riverbank erosion are common natural disasters in Bangladesh resulting in an increased number of displaced families and homelessness in the rural community. In this context, Asia Shelter Forum can be a great avenue where regional learning and sharing experience can mitigate vulnerabilities of the disaster-prone countries." He also wished that this conference will be able to make a platform for sharing knowledge, experiences, and best practices in the shelter CoP at all levels: local, national, regional, and global. He believed that this forum needs to be strengthened with an effective partnership and more robust collaboration so that engaged stakeholders could work together to provide accountable assistance to support affected people to survive, recover and rebuild their lives with dignity.



He believes that ASF also upholds the broader vision of the Government of Bangladesh related to shelter and settlements: "No one will be homeless and left behind; everyone will get an address of their own and have a right to dignified shelter during any emergency, which has been committed by our honorable Prime Minister Sheikh Hasina." He concluded his speech by saying "The Ministry of Disaster Management and Relief on behalf of the government of the People's Republic of Bangladesh, will be happy to support Asia Shelter Forum in organizing and managing the event along with Caritas Bangladesh, and other humanitarian actors."



5. Panel Discussion with Regional Governments



Mr. Marc D'Silva, the Asia Regional Director for CRS facilitated the panel discussion with the government representatives from Asia. The session aimed to convey how the governments in Asia are responding to disasters in their countries and coordinating with other non-government institutions. The session was also focused on the challenges faced and opportunities that could lead to a more effective coordination and collaboration among the various stakeholders including the approaches to localization.

Government officials from Bangladesh, India, Nepal, the Philippines, and Vietnam participated in the panel discussion and each shared experience from their country's perspectives. Mr. D'Silva mentioned that this is the first time in the ASF that officials from as many as five countries have joined in person. The panellists were given the floor to share one to two of their learnings and successes focusing on the emergency context, aftermath of the emergency, and longer-term response in terms of shelter and settlements.

Md. Atiqul Huq, Director General of the Department of Disaster Management under the Ministry of Disaster Management and Relief, Bangladesh, shared that one of the main features of disaster management in Bangladesh is the shelter or housing settlement. The government of Bangladesh is trying to provide all homeless people with a safe home, which is one of the first priorities of the country. The government has constructed flood shelters, cyclone shelters, Mujib Killa, and other shelters which are used during emergencies in various ways. The shelters are also being utilized by communities according to their need during the periods without disasters. As the country has 64 districts and



Marc D'Silva



Atiqul Huq

the context varies from area to area, the government has designed Multi-Purpose Disaster Shelters (MPDS) in distinct ways based on location. Decisions on the construction of MPDS are made at the community level, especially what will be the purpose of the shelter and where it will be constructed.

Low-cost shelters are another interest for the government and based on the resources government is trying to build disaster resilience user-friendly housing and shelter. Previously having beneficiaries' own land was one of the important criteria for getting government housing support, however, in the government Ashrayan Project for the first time "No Land & No Home" criteria were followed during beneficiary selection. The govern-

ment's plan is to provide housing including ownership of the land as the Honorable Prime minister is committed that no people will be left behind. Whatsoever, considering the context of the region, we think that there is a need to ensure everyone with shelter, electricity, road communication, WASH, and livelihood to live a standard life.

Mr. Partha S. Sahoo, State Team Leader, Housing and Urban Development Department (HUDD), India

Mr. Partha S. Sahoo started his discussion by throwing a question to the audience, "How many of you have your own shelter?" and found only 40% of people from the audience have their own house. He mentioned that Odisha, India is a disaster-prone state like Bangladesh which experiences different types of natural disasters like earthquakes, cyclones, and floods every year which cause damage to both urban and rural landscape. Hence, he highlighted how government initiatives have shifted from saving people's life and changing patterns to addressing housing issues. In the 1999 cyclone, there was huge human loss with many houses washed away.



Partha S. Sahoo

A primary reason identified is there was no Early Warning System (EWS). Soon after that, the chief minister set up a DRM unit and due to their evacuation initiatives resulted in less casualties in following cyclones. He mentioned that around 23% people live in urban slums. Considering their specific risks, the government initiated Integrated Housing Slum Development Program (ISDP) in Odisha for the people living in slum and coastal areas and provided houses to these people. Under the BACP program, with learning various housing guidelines and policies constructed disaster resilient shelter for the poor and those hit by natural disasters. Under the “Pradhan Mantri Awas Yojana” program, the government sanctioned the building of 2 million houses across Odisha. In alignment with NBC norms, all the houses are disaster resilient. This housing for all program has given opportunity for economically vulnerable people in urban areas to build their own home. People with houses in urban slums were at a greater risk of eviction. So, the Prime Minister came up with a policy called ‘Jaga Mission’ which is the Slum Dweller Act. The Jaga Mission is one of the largest slum land settlement initiatives of the government of Odisha, Department of Housing and Urban Development. The mission aims for Honorable Chief Minister Shri Naveen Pattnaik’s vision of empowering slums and transforming the slums into a livable habitat. Under this act, land rights certificates have been given to the landless urban people with the condition of non-transferrable status.

Mr. Partha S. Sahoo also emphasized on the disaster management housing policy of India. He shared that the housing strategy can be implemented by setting up a disaster response center. Rebuilding slums is crucial because those who reside there are vulnerable. Therefore, the state government takes the lead in slum reconstruction with the aid of civil society and utilizing a government model. Free services such as solar energy, biogas, and other things are also provided in the areas by the government. Any beneficiary who completes housing construction within four months will receive a 2,000 rupee incentive, while beneficiaries who complete housing construction within six months will receive a 1,000 rupee incentive. The government provides 2 lakhs rupees for an individual house building.

Ms. Anita Niraula, Joint Secretary of National Disaster Risk Reduction and Management Authority (NDRRMA), Nepal

Ms. Anita Niraula started her discussion by explaining some challenges. She shared that providing shelter and settlement is not very easy. Changed context like climatic situations, water induced disasters, and other natural disasters added multiple risks to housing solutions and shelter. The context of Nepal is in high risk of different hazards like landslides, earthquakes, fires, and lightning. Climate change has added additional risk for Nepal. By its constitution Nepal has ensured the right of housing for all people as a fundamental right. To ensure that right Shurokshit Awaz, and Janta Awaz Programs are the flagship programs of the government led by the Ministry of Urban Development in the Federal Government which is targeting all landless and poor. The world’s largest reconstruction and recovery program was undertaken in Nepal by the National Reconstruction Authority (NRA) after the 2015 earthquake; 8,000 houses were built including almost 7,000 private houses. In terms of a resilience solution it was provided by the National Reconstruction Authority (NRA). The partners, donors, and community based organizations (CBOs) worked hand in hand with government, public, and private organizations.



The National Disaster Risk Reduction and Management Authority (NDRRMA) apex agency, which works in disaster risk reduction and management, is also considered as a national resource agency. Within 3 years of its establishment, based on NRA’s experience, it has one guideline which is the private housing mobilization guideline.

The government is now planning to incorporate the major 6 hazards in the same guideline for more efficient use. Based on the NRA's experience, the ministry now has provision (the federal government has 60% contribution of its total amount, provincial government has 30% of the total amount, and the local government by 10-20% based on their capacities of total housing grant) to provide housing grants to those with houses damaged by any disaster. They are also looking at multi hazard resilience on shelter and settlements.

Mr. Suharto Wahab, Director II, Ministry of Human Settlements and Development, BARMM, Philippines



Mr. Suharto Wahab shared that the Bangsamoro Autonomous Region in Muslim Mindanao is governed by the Ministry of Bangsamoro government and has received a grant from the central government to implement shelter programs. These programs include the Emergency Shelter Assistance Program and recovery shelter program. The government is highly committed to meeting the housing needs of the region and has a vision of closing the 5.6 million housing gap in the country. To achieve this, they plan to implement 6 million housing projects in 6 years in partnerships with developers in the country. However, collaboration is needed from civil society and organizations to realize these plans due to competitive priorities and budget constraints. The ministry designated to coordinate the shelter response in the region requires assistance with

respect to the coordination mechanism and a funding source to realize all these plans.

Mr. Ngoc Tan Ta, Senior Specialist, Vietnam Disaster Management Authority (VNDMA), Vietnam

The Vietnamese government has approved a national program aimed at managing natural disaster risk in the community, which includes a Resilient Shelter Program. The program is designed to address the needs of the people during natural disasters, and the CPDIM has identified risks and prioritized solutions, developing an annual plan with a corresponding budget. The Resilient Shelter Program has mobilized government, international private sector support, and community engagement to implement it in the short and long term. In the short term, the program has built four thousand houses in areas frequently affected by floods and typhoons, and these houses were effective in withstanding the 2020 flood and typhoons. Additionally, more than one hundred communities have received emergency aid from the Asian Development Bank (ADB) or shelter recovery after the typhoon. Vietnam has established a Disaster Risk Reduction (DRR) partnership involving 26 organizations, including NGOs, INGOs, UN agencies, and the government. CRS was awarded by the Prime Minister for its contribution to disaster recovery in Vietnam and has been working closely with the government to respond to and recover from disasters. In the long-term, the newly formed program is applying new techniques to strengthen shelters and resources for new disaster response designs, as Vietnam is prone to 21 types of disasters.



6. Keynote Presentations

Mr. Jamie Richardson, Shelter and Settlements Technical Advisor for CRS, facilitated this interactive keynote presentation and discussion session with global and local technical experts that have been playing a key role in humanitarian coordination nationally and globally. Four expert leaders from four leading organizations in the shelter sector were assembled to present and discuss perspectives on the critical issues around coordination, highlight key considerations, and suggest opportunities for future disaster preparedness and response.

Mr. Kazi Shahidur Rahman, the Humanitarian Affairs Specialist of the UN Residence Coordinator Office in Bangladesh, presented his keynote with the objective of sharing the update of the multi-hazard based Inform Index and contingency plan update of the shelter management and emergency response plan (ERP) approach.



He mentioned that the humanitarian monthly and annual plans, which are evidence-based data describing the coordination model integration and growth at the local level, are concentrated on the National Plans & Nexus Strategy. The four pillars of this plan are risk analysis and impact, readiness action, institutional capacity, and responsive action which create a multi-hazard risk map and determine the magnitude of the humanitarian impact during risk and impact analysis. The target area of the plan is the Upazila (sub-district) level and adheres to the Inform Index. In order to create the collated multi-hazard location map, various elements were combined into distinct classifications. They created a shared framework for the DRR climate change funding model by using the ERP methodology. In addition, a fallback strategy is being tested through the START Network. They worked with the government to test as

a backup plan in eight coastal communities. This works as a localized multi-sectorial preparation strategy and a national model that emphasizes inclusivity. The shelter structure will contain standardized instructions and standardized beneficiary data and emphasize the collaborative assessment already conducted with the government thus far. Along with IOM and other displacement groups, they also assisted in managing the storm shelters. The government favours the area-based strategy because of its greater effectiveness. The final pillar is the action plan response, where they make plans for the response to a flash flood in 2022. At the end, the Inform Index can be utilized for the shelter decision making during response.

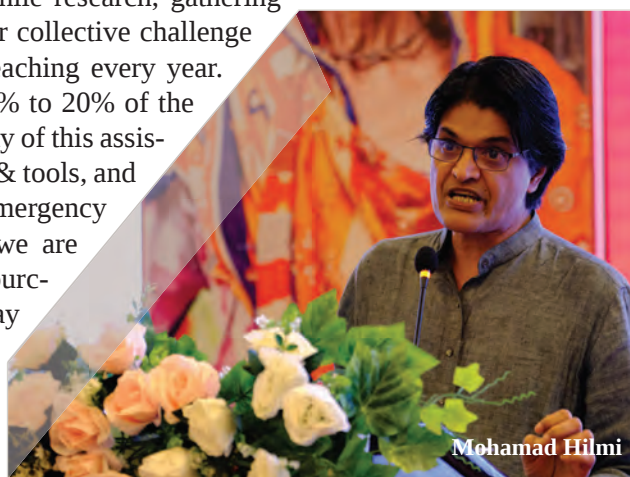
Mr. Sanjeev Kafley, the Head of Delegation of International Federation of Red Cross and Red Crescent Societies (IFRC) in Bangladesh presented the keynote. He explained that IFRC has been present in Bangladesh before the Liberation War of 1971 and supporting the Bangladesh Red Crescent Society (BDRCS) in humanitarian work and development. Focusing on IFRC's involvement in the shelter sector, he mentioned that IFRC has been engaged in the shelter sector for a long time. Its sheltering activities started at the first hour of the relief activities. Referencing the highlights of the costing of sheltering mechanism, he added that IFRC has been the global convener of the shelter sector since 2006. IFRC has quite good engagement in Bangladesh context engaging with the BDRCS and is the link to the global cluster mechanism.

As a shelter actor, IFRC has faced several specific challenges. The first one is climate change, and Bangladesh is a climate vulnerable country facing multiple disasters every year. It also talks about the evolving crisis and the disasters, which is a global challenge on the planet that is kept as a part of IFRC's strategy. By equation, it is well known to all that in Bangladesh, there are different issues of migration as well. All these challenges have linkage with the sheltering.

He mentioned about the shelter resilience which relates mainly to the design, quality and location of the shelter and its friendliness as the specific need of the disabled people cannot be ignored. The houses we built should have proper access to everyone which is the key element the presenter wanted to highlight.

Looking at the overall approach of sheltering, IFRC does not consider shelter as a structure only rather sees shelter as a process to bring communities towards resilience, connect the people, bring the people together and go forward. Mr. Kafley also emphasised on provision of cash assistance for shelter construction and IFRC's commitment for providing shelter kits to BDRCS. IFRC is also committed to enhancing the coordination mechanism in response including preparedness, and capacity building focusing on localization of agendas.

Mr. Mohamad Hilmi, the Senior Coordinator and Technical Specialist for Shelter, Settlement and DRR from InterAction presented his keynote based on his global experience in the shelter sector. Focusing on the number of participants, he said that collectively, there is over a 1000-years of shelter-related experience in the room, with over 300 people participating in this forum. While research, gathering evidence, learning, and innovations are important, our collective challenge is how few percent of people in need that we are reaching every year. Globally, the shelter responses reach an average of 8% to 20% of the people in need with shelter assistance. The vast majority of this assistance is in the form of non-food items, basic materials & tools, and tarpaulins – meeting the bare minimum, basic emergency support. He added that, “Scaling up is something we are continuing to struggle with. With traditional funding sources and existing humanitarian shelter capacity we may not be able to scale up and provide more durable assistance to a much larger presentence of people. We must reach out and work in synergy with existing local capacity, non-humanitarian/external actors, local government, and other stakeholders and develop stronger partnerships to find a more durable and principled humanitarian response.”



While trying to adhere to technical Sphere standards for WASH, health, and shelter, the fundamental contract that we have with the affected population, that is adhering to the Core Humanitarian Standards and meeting the aspirations of the affected communities, is often overlooked. The nine Core Humanitarian Standards (appropriate and relevant; effective and timely; strengthening local capacity and avoiding negative effects; improved communication, participation, and feedback; complaints mechanisms; coordination and complementarity; learn and improve; staff care; manage resources responsibly, including ecosystems) when taken seriously will go a long way to meet some of those aspirations of the affected community.

People's needs are complex, intertwined, and multi-sectoral. Hence there is a need to have a system that works across sectors and specialties, with various stakeholders. The settlements approach is one of the modalities that considers the whole population, working with multiple stakeholders to achieve localized, multi-sectoral outcomes. Therefore, besides shelter, actors must reach out to the WASH, health, protection, and livelihood peers and understand the interlinks and advocate for the wider impacts of shelter and settlements. In addition, there must also be a need to look at various coordination mechanisms and see how they should be adapted to meet challenges in climate and environment, and localized solutions.

Mr. Charles A. Setchell, the Senior Shelter, Settlements, and Hazard Mitigation Advisor of USAID Bureau of Humanitarian Assistance (BHA) focused on multiple interconnected themes of USAID/BHA's shelter and settlement strategy, and the five forum themes. Giving examples he tried to make the audience understand how the themes are reflected in some of the core features of their strategy, and to reinforce both the intersection of the strategy and the interconnectedness of the themes within the strategy.



The first forum theme was Coordination Mechanism and Local Capacity which is best reflected in USAID/BHA's strategy through the settlement approach and its direct link to localization, with its practical and policy-oriented focus on supporting local actors to create safer shelters, and more resilient and sustainable settlements. He added that promoting this type of settlements requires local development, infrastructure, environmental planning, policies and practices which involve greater involvement of shelter and settlement actors before and after crises strike and greater collaboration with not only local and national governments but also a network largely focused on ignored marginalized groups with both capacity and resources. Settlement Approach (SA), can be used a way to promote climate change adaptation and localization. With 1 billion climate refugees projected in the next 20 to 30 years, it will be critical to identify mechanisms that can inform planning and management of both existing and new settlements. Focusing on settlements, then reflects emphasis on people, their assets, and socio-economic networks and structures of survival and life. By adopting the SA, we emphasize aspects of place that are important to our mandate, especially now our given focus on localization. Rather than an area-based approach, the features rely upon abstract geographic concepts created to categorize landscapes and ensure the settlement approach provides a richer reflection of where people live and where we work.

In the Second forum, BHA reflected on Shelter and Settlement innovation in strategy through a long-standing emphasis on context and met the support of local builders, local materials, and local building modes where possible and sustainable. Supporting Shelter and Settlement programs are focused on context, generating greater economic benefits than any other humanitarian intervention and can help jump economic recovery and long-term reconstruction efforts. In addition, BHA has promoted the importance of context, in part to reflect the development community's focus on location. The recent experience in Afghanistan and in the region suggested the need to clarify notions of binocular construction, for example, in complementing proven local practices with new techniques aimed at strengthening understanding and mapping of household risks, resources, and shelter opportunities and an excellent local example of the conversions of this theme and other themes are followed including recovery and resilience. "When we were responding to Cyclone Sidr in November 2007, we already called it the category 5 cyclone whose winds speed up to 265 km per hour were causing catastrophic losses in Khulna and Satkhira and several other districts. We supported CRS to implement a large project featuring a reinforced Grameen House Design to reduce wind impacts and raised and reinforced plinths to reduce flood impacts. This, after incorporating DRR into a shelter response, proved invaluable when Cyclone Aila struck in 2009, which affected the same area impacted by Sidr. We found the only structures still standing, those provided after Cyclone Sidr which is testimony to the value of DRR".

The third forum theme was Shelter and Recovery response. These are reflected in at least three aspects of USAID/BHA's strategy: coverage of needs, transition to longer term recovery and clarifying the nexus between Humanitarian Assistance (HA) and Development Assistance (DA). The task for 2022 in the global shelter cluster dashboard shows that shelter cluster actors have assisted and covered the needs of 1 million people and the actual need of shelter with about 200,000 HHs receiving shelter. This coverage of shelter needs is remarkable and should be recognized. The Shelter Cluster has identified 51 million people in need this year. So, we have only ended up addressing about 2% of shelter needs. If we just focus on the targeted total need for shelter, the percentage we drive is only about 9%. Global shelter cluster actors were just unable to address the shelter needs of over 90% of shelters we have encountered that needed shelter. Diaspora, government, and other sources of support cover some of the shortfalls but not nearly enough. Simply stated, we are leaving too many behinds and undermining their long-term recovery which only exacerbates vulnerability to future challenges. The shelter is the output of humanitarian actors whereas housing is the output of development actors. Rather than continue to support them separately, efforts should be promoted that intentionally facilitate the transition from shelter to housing, to accelerate recovery and reconstruction in a more efficient, effective and expeditious manner. Even with the very low rate of coverage noted earlier, BHA seeks to reduce unit costs to maximize the number of beneficiaries. So, provision of modest shelter design on a mass scale would be a critical priority going forward. BHA cannot support reconstruction or development but only humanitarian assistance. The mandate contributes to clarifying the nexus between humanitarian assistance and government assistance, thereby ensuring humanitarian funds are used for humanitarian purposes.

The fourth forum theme was Green Resilient and Inclusive Development (GRID). It reflects numerous aspects of BHA's strategy or sector guidelines for example, and effort to incorporate Disaster Risk Reduction Activities into project design so that environmental conditions and creatures are considered during project implementation. In addition, BHA promoted green infrastructure and green shelter inputs and is currently supporting research in Indonesia on the green in plastic sheets using recycled plastic waste. Further, BHA is working closely with our protection team and global protection cluster on housing and land property rights and other protection concerns to have them better reflected in BHA's Shelter and Settlements programming.

The final forum theme focused on cash and markets as a key means of promoting economic recovery in crisis-affected settlements. The Shelter and Settlement sector activity is very likely to generate greater economic impact in affected settlements rather than any other humanitarian assistance. As BHA continues to give cash as an implementation modality requires technical guidance and monitoring like other project activities. When cash-based programs are not managed carefully limited impacts and performance are often the result. The use of cash requires assessment and analysis of conditions in both housing and non-housing portions of the settlement. Understanding of needs, costs, resources, and opportunities should be obtained. BHA continues to support cash-based efforts where they contribute further coverage of shelter needs in crisis-affected settlements. The displaced population reminds us of the need for and importance of shelter on a regular basis which we often overlook. Shelter practitioners need to be more responsive with their needs.



7. Technical Sessions: Day 1



Five parallel discussion sessions were conducted by experts and teams from various development partners domestically and across the Asia and Pacific region and the participants participated in the sessions according to their interest. The objective of the technical sessions was to interact regarding experiences and success stories in forwarding sustainable solutions in shelter such as localized practices of addressing multi-hazard shelter and settlements response across the Asia and Pacific region. These sessions were an opportunity for collaborators to co-present and facilitate to enrich the conversation.

7.1 Coordination Mechanism and Local Capacity Localization: Local Leadership in Humanitarian Response

This parallel technical session sought to discover what shelter actors are doing to increase local leadership and how this is understood by different groups. **Mr. Mohamed Hilmi** from InterAction, **Mr. Meshba Uddin Ahmed** from Shelter & Settlement Working Group (SSWG) of InterAction, and **Ms. Bai Maroudz Sinsuat Ibrahim** from CRS Philippines jointly facilitated the session. The main objectives of this session were to raise awareness of research initiatives by various organizations and how they can be involved; explore understandings, experiences and examples of localization in the shelter sector; and gather contributions from participants on tensions, challenges and opportunities while trying to increase local leadership and locally led response in the shelter sector. The contributions from local or national organisations or international staff who are actively taking steps to shift leadership and decision-making were discussed by the facilitators. The inputs from this session helped inform the ongoing research being carried out by InterAction and its SSWG Members contributed to a vision for the shelter sector of what a successful locally led response looks like and practical recommendations on what is needed to get there.

A 12-question Menti quiz was used to hear practical experience from participants representing a diverse range of organizations (from UN agencies to international NGOs, to national and local NGOs, to local governments). Participants reported that capacity needs to be increased within resource mobilization, local partnerships, trust principles, gender awareness, technical skills, community engagement, empowering and strengthening the local communities as the drivers, and donor awareness. Participants viewed skills and capacity, accessibility, funding, trust issues, culture, language, lack of coordination, political issues, poor strategy, and ego (saviour mentality) as primary barriers to increased local leadership in humanitarian response.

In conclusion of the session, there were several main takeaways: shelter practitioners should document bad decisions as much as good ones; local leadership is when the community themselves gets involved and is capacitated with their own resources; a locally led response requires an area-based approach and capacity building of the local NGOs and CBOs. The contributions from this session will feed into the ongoing research by InterAction on local leadership in humanitarian response and inform recommendations for shelter and settlements stakeholders on how to support a successful locally led response.

7.2 Shelter and Settlements Innovation: Local Building Culture solution approaches

The objective of this session was to highlight lessons learnt, importance, challenges and way forward in innovative development initiatives based on the learnings. Dr Catherine Daisy Gomes and Ms. Humaira Anan from Bangladesh University of Engineering and Technology (BUET) under the Department of Architecture, Ar. Satprem Maini from Auroville Earth Institute, and Mr. Zubair Munir Shah Hashmi from Miyamoto International shared presentations from their experiences while Dr. Shayer Ghafur, Professor, Department of Architecture from Bangladesh University of Engineering and Technology (BUET) facilitated the session.

Dr. Catherine Daisy Gomes and **Ar. Humaira Anan** shared the learnings from the shelter design preparation research study for 9 ethnic communities in the Chattogram Hill Tract (CHT) which was conducted following a community-based approach. They considered ecological perspective, cultural perspective, and physical aspect in the design process. They used Participatory Rural Appraisal (PRA) techniques, community mapping, survey in the community and focus group discussion and interviews with the leaders, traders to understand the cultural and social needs. Following the data and the local practices, shelter construction design for the nine ethnic communities have been developed considering both the culture and the structural measures as well as their dwelling patterns.

Ar. Satprem Maini talked about the Earth Based Materials and Technology for a sustainable future for which his institute has been working since 1989. Emphasizing on the proper management of human and natural resources, they have been working on response sensitivity to the ecological balance and promoting Compressed Stabilized Earth Block (CSEB) which are not fired, and they emit 12 times less carbon dioxide. Besides, this produces 10.7 times less embodied energy than country fired blocks and limits deforestation. This technology is currently being used in India after rehabilitation from the 2001 earthquakes.



Mr. Zubair Munir Shah Hashmi shared about the Local Building Culture of Southeast Afghanistan from his experience in working with Miyamoto International. He mainly focused on the private sector's support in the shelter cluster in Afghanistan. They aimed at supporting owner driven localized solutions which are diverse and flexible shelter for various pathways and used vernacular construction methods to repair the 50% enclosed spaces affected by the earthquakes. In addition, they used the flexibility and the rotation technique to reduce the further risk. However, the main challenge is that many organizations are familiar with the supply chain driven responses and have less flexible programming due to funding and capacity. Hence, to face these challenges, wider collaboration and more partnership is highly needed.

The key take-aways that emerged from these three presentations were: innovation in shelters based on local building culture offers options to reach communities with shelter needs; innovation in shelters ought to be social innovation through consideration of and aligned with the community's building capacities, way of living, livelihoods and context, including tenure and natural hazards; innovation either through technology or

design should be resilient and sustainable in the long term by scaling up from the initial piloting phase; innovation in shelters has to be aligned with the shelter delivery process in a given context by involving different stakeholders at different levels; designers should look at the entire environment not just the structure while designing innovative shelters and innovation should aim for overall interaction between local building culture, as a whole, including structural safety against hazards.

Innovation: Disaster Resilient Modular CORE Shelters for the Ethnic Communities in Chittagong Hill Tracts Area

Based on research by the Housing and Settlement Division, DoA, BUET in partnership with Caritas Bangladesh and Catholic Relief Services working on “Disaster Resilient Modular CORE Shelters for the Ethnic Communities in Chittagong Hill Tracts Area.”

A community-based approach was used to develop the Modular CORE Shelter for the Ethnic Communities of CHT. In Community Based Approach, communities have an active role and participate in highlighting and addressing the issues that matter to them. The research using CBA, which is a bottom-up approach (making the user group inclusive in the process), Three steps were undertaken: learning by production of knowledge, designing by preparing manual and implementation. In the first phase the knowledge is produced through the research work and field survey information. Then, the application of that knowledge was in the second phase with the produced manuals for the Modular Core Shelter for each ethnic community. In the Learning phase to understand the social, spatial and cultural aspects of the ethnic communities the consortium did a survey on 45 homesteads of nine ethnic communities in 9 Paras following the path of CBA of CB and CRS.

A community-led settlement approach focuses on the strength of the whole community and community members to plan, manage and implement their settlement plans by sharing information, mentoring and “learning by doing” activities to achieve the most sustainable solutions. Housing being a basic need, plays a vital role in creating an inclusive, safe and resilient community in the pursuit of Sustainable Development Goals.

7.3 Shelter and Recovery Response: Multi Hazards

This session was jointly presented by **Mr. Mohammad Abu Sadeque** from the Centre for Housing & Building Research (HBRC) of Bangladesh, **Mr. Muhammad Awfa Islam** from the Institute of Disaster Management and Vulnerability Studies of the University of Dhaka, and **Professor Raquib Ahsan** from Bangladesh University of Engineering and Technology (BUET) and facilitated by **Mr. Arif Abdullah Khan**. Focusing on the impact of Floods in Bangladesh, the facilitators shared recommendations that can be followed in flood shelter recovery programming.

Mohammad Abu Sadeque presented the topic of Post Flood Shelter Recovery for the 2022 flood in North-Eastern part of Bangladesh. Mentioning the local housing practices and materials, he explained that in flood-affected areas home construction typically utilizes mud for the plinth, bamboo for pillars, fences, and roof trusses, and roof covers are made with corrugated galvanized iron sheets.



He showed that their study found 94% houses were Kutchha and 6% were semi-pucca in the flood affected areas. Their assessment identified plinth damage at 100%, structure damage at 30%, fence damage at 70%, roof damage at 8%, and more than 20% of the damaged plinth is not repairable in the flood-affected areas.

To reduce the impact of the hazard he talked about their research recommended 4 types of shelter - Model-A1: Core House (It should last for 30 years), Model- A2: Reinforced Masonry, Model-B1: Frame structure on a raised plinth, and Model- B2: Stilt Structure house. He also recommended a dual pit latrine at the higher ground above flood level, with a ferro concrete circular pit and pit cover, and provision for overhead water tanks. At the end of his presentation, he also emphasized the directive of the Bangladesh Government on the use of ferrocement for rural housing, riverbed sand and soil for manufacturing blocks, and replacement of clay burnt bricks by concrete blocks (Bangladesh government declared by 2025 clay burnt brick will be banned and instead of clay burnt brick people need to use concrete blocks).



Mr. Muhammad Awfa Islam presented the topic of Response and Recovery issues during the 2022 north-eastern flood in Bangladesh. Showing various damage data from different government departments and offices, he tried to make the audience understand the multi-sector impact of the flood such as in agricultural, housing and community infrastructure, health and nutrition, education, WASH, local business and tourism, local governance, gender and social inclusion, environment, and wildlife. Besides the government, non-government, UN agencies, many informal groups, institutes, and community people also respond to the affected people. He also pointed out some of the issues that he observed in the response operation which were lack of information, lack of coordination, shelter management, loss of connectivity, absence of necessary facilities (boat, water, ambulance etc.), and a more centralized system of response. Hence, he recommended that to provide necessary support as per the identified priority needs to introduce an advanced and multi-hazard Early Warning System and ensure proper dissemination; to establish a proper coordination system among relevant stakeholders; to prepare a checklist for the responsible government officials to be followed during any disaster; to operationalize Disaster Management Committees at the local level; to provide necessary emergency support facilities (boats, water ambulances etc.); to provide necessary training to the responsible officials and sensitize them on gender issues, disability inclusive disaster risk management etc.; and to establish a system of integrated rural planning (zoning and land use planning) in the wetlands. He also suggested designing better preparedness measures, responding to the immediate needs, community based/led capacity building and strengthening interventions aiming to build resilience at the community level, and learning from the errors and making DRR everyone's business as a way forward.



Professor Raquib Ahsan presented the topic "Preferred Shelters for Earthquake Disaster in Bangladesh Township." During his interactive presentation, he presented a variety of questions for the participants. While answering the question, what structures should be chosen as temporary shelters after an earthquake, he mentioned that they have been implementing a project in Mymensingh in 12 wards under the national resilience project.

A contingency plan has been prepared for this township under that project. Feedbacks is solicited from community for developing the plan and their preferences are the clues to the questions he asked to the participants. These questions will assist in selecting the temporary shelter after the earthquake.

He shared that after any Earthquake (EQ), there are houses fully or partially collapsed and there are some houses intact. Even after any major EQ, aftershocks are very probable. Therefore, who will be sheltered first, for how long, in what type of shelter, and at which facilities are required decisions that must be made wisely. Giving examples of Rangamati Ward No. 6 and Rangpur Ward No. 16, he shared that people of Rangamati preferred government institutions as they think they are better built, and they can take shelter; while people of Rangpur preferred open space rather than the government institutions. However, open space is challenging during monsoon season, so seasonality must be considered.

He added that EQ structural adequacy is important. To assess how many people will be accommodated, there is a need to first identify which buildings will get demolished. For ensuring a safe shelter, the structures need to be assessed more rigorously and detailed engineering assessment is needed. Road blockage after an EQ should be considered to access the shelter. There should be plans so people may be evacuated from that place. For longer term accommodation, there is a need for permanent or temporary mobile toilets can be used. Volunteer management for evacuation at the community level is also important.

7.4 Green, Resilient and Inclusive Development (GRID)

From climate mitigation to climate adaptation - sustainable shelter construction

The objective of this session was to highlight best practices, lessons learned, and challenges from the refugee response context. The discussions were focused on innovative ideas and implementing aspects of interventions in an emergency in a refugee response context. **Ms. Karolina Brach** from Shelter/NFI Sector of Cox's Bazar, **Ms. Fenella Henderson-Howat** from Environment Technical Working Group, Cox's Bazar, **Dr. Farjana Jahan** from International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B), **Ms. Sanzida Akter** from Caritas Bangladesh and **Md. Tazammul Hossain Taz**, from BRAC, jointly facilitated the session.

The first presentation in this session was 'From climate mitigation to climate adaptation - sustainable construction in the FDMN response' by **Md Tazammul Hossain Taz**. He presented the topic on treated Bamboo for the forcibly displaced Myanmar National (FDMN) shelters in terms of environmental sustainability.



Ms. Sanzida Akter and Dr. Farjana Jahan jointly presented the topic "Greening the shelter response with Jutin Sheet piloting experience considering climate-resilient alternative shelter materials in the forcibly displaced Myanmar National (FDMN) camps and host community as nature-based-solution," which is one of their joint innovative pilot projects.

Dr. Farjana Jahan gave a short introduction on JUTIN and shared that the innovation was titled: Jute to climate-resilient innovative shelter material (JUTIN). Dr. Mubarak Ahmed Khan, a renowned scientist at Bangladesh Atomic Energy Commission, patented JUTIN in 2010. JUTIN is mainly composite roofing material made from Jute hessian cloth reinforced with polyester resin which is prepared using a simple hand lay-up technique. She shared the processes of Jutin fabrication, and illustrations of the houses made with JUTIN. The JUTIN concept materialized aiming to address fire safety concerns in the Rohingya camps.

The research conducted a fire resistance test which showed that 7 minutes after the start of the test, the unexposed surface temperature was more than 139°C and 10 minutes after the start of the test the unexposed surface was observed to catch fire, while the plastic sheets caught fire 3 times quicker. The test results also showed that the combustion of plastic sheets generate polyvinyl chloride (PVC) was very toxic in having the smallest value, whereas the combustion of JUTIN sheets generated O₂, CO₂, HC, CO, and NO but the exposure margin will not cause acute toxicity. The data from the piloted project shows that the mean indoor temperature of JUTIN houses is 2°C lower than tarp houses, the indoor-outdoor temperature difference is significantly lower in JUTIN houses than in tarp shelters. JUTIN shelters separately showed a significant reduction of indoor air temperature, mean indoor humidity of Jutin houses is lower than tarp houses, and indoor light in Jutin houses is significantly higher than tarp houses both in sunny and cloudy days. The families living in the piloted JUTIN shelter shared that the house is more protected and safer, adequate amount of light and ventilation was found in the house with no possibility of the roof blowing away by the wind if properly connected. Additionally, rainwater cannot enter the house, and mice and insects cannot damage JUTIN. She also shared some of the important recommendations made by the experts for the next steps such as adding fire retardant paint on Jutin to increase its fire resistance; comparing fire rating between CGI sheets and JUTIN sheets can add additional value (the facility is not available in Bangladesh); U hook could be best to fix with Mulli bamboo to tighten properly; utilizing JUTIN-based ridge materials instead of cemented ridges; using darker colored JUTIN sheet to prevent opaqueness and shadows; utilizing JUTIN-based plain sheets for window and doors; conducting more fire tests based off of implementation of these recommendations; and future collaboration on entrepreneurship and marketability can be explored.

Ms. Sanzida Akter shared the initial condition of the shelters in the Rohingya camps which were constructed with bamboo, rope, soil, and plastic tarpaulin making them vulnerable to cyclone-level winds, monsoon rains, heavy monsoon, fire, and other concerns. The non-durable construction materials result in poor use of people's time, repeated repairs and maintenance, upgradation, and increased costs and need for funding. Due to the declining trend in funding, after five years of response, maintaining the shelter program is becoming very difficult nowadays as the need is increasing. In addition, plastic-centric housing increases the protection concern and security risk for the Rohingya community and produces a huge amount of waste plastic materials every year. The produced plastic waste also caused waterlogging which relates to shelter damage and ecological imbalance. Therefore, alternative shelter materials were needed. Keeping this idea in mind, the ICDDR,B and Caritas Bangladesh conducted a pilot project on Jutin sheet, with the objectives to focus on durability, health safety, comfort, privacy and security, effectiveness, fire safety, feasibility and acceptability, and nature-based solutions.

From the dwellers of the constructed pilot shelter, Caritas Bangladesh has been collecting data, following different methodologies, on temperature, humidity, CO₂, lighting and dwellers' experience on a regular basis. The first phase of the pilot was conducted both in the camp and the adjacent host community and a total of 6 shelters in different designs were introduced to check the feasibility and adaptation modality. The piloting phase has ensured coordination with the SNFI sector and its partners. The piloted area periodically visited by Refugee Relief and Repatriation Commissioner (RRRC), Camp in Charge (CiCs), Shelter & NFI Technical Working Groups (TWiG) partners and sector representatives and donors.

The presentation of **Ms. Karolina Brach** and **Ms. Fenella Henderson-Howat** categorized climate actions into climate mitigation and climate adaptation. The climate mitigation aspects covered the sectors of actions that reduced emissions causing climate change. In the Rohingya camps, the Shelter/NFI Sector and Energy & Environment Technical Working Group conducted innovations like the distribution of gas cylinders for clean cooking, solar panels for renewable energy, and established mechanisms for solid waste management. Climate adaptation which is the actions to manage the risk of climate change impacts included interventions like landscape restoration, climate knowledge and skills development among the community, biodiversity conservation, early warning, and anticipatory action, watershed management in the camps, climate-smart agriculture, and flood protection.

Ms. Brach also shared some achievements of the earlier-mentioned interventions and showed some comparison of the initial stage and the current stage of the Cox's Bazar response. In the initial stage of the FDMN response, the area experienced over 7,000 hectares of forest degradation and 54,452 tons of biomass used per year; 6,000 hectares of forest were destroyed; and without any flood protection system, as the area was untouched forest area. Considering the environmental issues, for access to clean cooking 900,000 FDMN households were provided with regular LPG refills (2018-ongoing) and 41,000 host community households (2018-2021); for landscape restoration, 600 hectares of land was restored with native species in the camps and 2,600 hectares in host communities since 2018; and for flood protection watershed management and restoring natural water streams has been established and sector hazard mapping exercises were conducted with the community including stakeholders which led to realizing the importance of coordination with the stakeholders and partners. In addition, a Strategy for Climate Action in Cox's Bazar Bangladesh (2023-2025) has been developed by the Energy and Environment Technical Working Group with the objective of ensuring sustainable energy solutions for cooking, lighting and solid waste management; restoration and rehabilitation of the natural environment and conservation ecosystems; and strengthening community resilience against climate-related and other environmental risks.

Best Practices or Case Study: FDMN shelters made of durable, cost effective treated bamboo

Around 945,953 individual Forcibly Displaced Myanmar Nationals (FDMNs) are living in Cox's Bazar district in Bangladesh. The population is extremely congested in camps. Shelters are exposed to cyclic monsoons and FDMNs live under the risk of floods, landslides, fire and cyclones. Temporary materials such as bamboo and tarpaulin have a limited capacity to resist weather impacts, and thus require regular repairs and replacement. The dependency on bamboo leads to overharvesting and has a negative impact on the environment. Addressing this problem, UNHCR, in collaboration with BRAC established three bamboo treatment plants in Cox's Bazar in November 2018. The expectation was to increase the lifespan of Borak (Big) bamboo by protecting it from insects, fungi and other biological as well as physical elements.

Borax ($\text{Na}_2[\text{B}_4\text{O}_5(\text{OH})_4] \cdot 8\text{H}_2\text{O}$) and Boric acid (H_3BO_3) with a ratio of 1:1 being used in bamboo treatment process. A 10% solution is prepared with the chemical. After, they are taken out and kept in a shaded place to dry for at least one week. Finally, they are stored for future use. The objective was to compare both treated bamboo and untreated bamboo on expenses, durability and operational time required to find which solution is appropriate in the long run. Financial information was collected from the production report from different bamboo treatment plants. Information related to durability, structural conditions and other observations were collected through KIIs (Key informant interviews) with the occupants of untreated and treated bamboo made shelters.

Within one year of operation of the treatment plant, it was found that after treatment the cost of one treated bamboo is 531 taka on the other hand, one untreated bamboo costs only 395 taka. The initial cost of an untreated bamboo made shelter is 4,740 taka. And in a 3 years time frame the cost increases to 10,700 taka considering the yearly repair and maintenance expenses. On the other hand, for the treated bamboo made shelter the initial cost is 7,965 taka. And for the last three years no need to replace the main bamboo posts. If we compare the initial and maintenance cost, it can be seen that the initial cost of treated bamboo-made shelters is higher. However, in three years period, the cost of untreated bamboo-made shelters increased significantly compared to the one done with treated bamboo. Treated bamboo shelter is more durable, cost-effective, and environmentally sustainable than an untreated bamboo shelter. In addition, the use of treated Bamboo relieves the beneficiaries from the hazards of changing bamboo frequently and reduces their suffering.

7.5 Cash and Markets: Shelter and Settlements enhancing local economy

The objective of this session was to highlight best practices, lessons learned, and challenges from cash-based programmatic areas. The discussions were focused on unpacking the various initiatives and procedural aspects of cash-based interventions for disaster-affected communities in the Asia region. **Md. Mostak Hussain**, Director- Humanitarian from Save the Children in Bangladesh facilitated the session while **Md Abdullah Al Mamun** from CRS Bangladesh, **Mr. Alexander Tripura** from Caritas Bangladesh, **Mr. Johanes Juliasman** from CRS Indonesia, and **Ms. Anjana Guru** from CRS India were the co-facilitators.

Md. Mostak Hussain



Md. Abdullah Al Mamun and Mr. Alexander Tripura jointly presented the topic Group Cash Transfer (GCT) approach, a way to provide resources in the form of cash for selected groups to implement projects that benefit either a sub-section of the community or the community at large. It's a response modality that seeks to transfer power to the crisis-affected populations (typically delimited by the geographical location) or community groups (i.e., self-help groups, CBOs, community committees, and other formal and informal structures) to respond to their own needs and priorities. They added that GCTs will lead the community to discuss the market, product, and quality enriching community involvement.

Humanitarian actors were following a trend of Cash Transfer Programming (CTP) due to the rapid reply considering response quality and accountability. They shared the phases of GCT that Caritas Bangladesh (CB) is following which include: Phase 1. Planning (preparedness, situation analysis, and program analysis and design), Phase 2. Implementation, and Phase 3. Monitoring, Accountability, and Learning. Considering the localization issue, CB is also trying to implement Cash and Voucher Assistance (CVA) in emergency response besides its development programming. GCTs for selected groups as per choice activates the power and benefits for affected people to plan, design, monitor, implement, and analyse the gaps within the communities. A Mobile Money Transfer (MMT) modality may be followed based on the applicability and ability at the ground which will reduce the risk of verification and critical issues like taking signatures from the beneficiaries. Moreover, it leads to a good process where it enables the staff to monitor cash transfers in real time.

Mr. Johanes Juliasman shared one of their initiatives for an alternative financial solution for an affordable housing project that was implemented at Kehung Dalem village of Mauk sub-district in Tangerang District, Banten Province, Indonesia. CRS Indonesia found that the housing needs in Indonesia have not been substantially met and affordability is the main obstacle. Besides, policies and institutions that support affordable housing have not effectively increased housing outcomes at the scale needed. Facts about Uninhabitable Houses (RTLH) in Indonesia are that 1 out of 2 households live in houses that are not up to standard (2019 National Socio-Economic Survey/Susenas data). District governments have not optimally been able to meet the needs of Habitable Houses (RLH) through the district government budget (APBD). Considering these findings, CRS Indonesia initiated a pilot project for 25 families, the community and village government, and the district government of Kedung Dalem village in partnership with Habitat for Humanity Indonesia to find an alternative financial solution for affordable housing. The piloting was to ensure a safe building of decent and affordable level shelter with the help of governmental response for low-income and vulnerable community people. As affordability of houses is a barrier for the community to reduce this parameter, consultation among the community, raising funding, and then using it to get affordable housing were considered. Besides, using the village funds as an alternative financial source for housing was introduced.

Moreover, the CVA approach was followed, especially voucher assistance in the pilot project. At the end of the project period, learnings were captured and documented. It revealed that the construction approach model provides choices and preferences of beneficiaries with self-help and contributions from beneficiaries. The standard design and structure of HABITAT INDONESIA can be adapted to beneficiaries with special needs (toilet, doors, railings, ramps), can be upgraded and there is an opportunity to adjust the design. This project supported the strengthening of governance in planning and budgeting for the provision of affordable housing at the village and Tangerang District levels. Besides, it succeeded in advocating for the Kedungdalem Village government to input the provision of affordable housing into the Village Development Planning for 5 housing units (IDR 25 million/US 1725/unit) through village funds. Other villages in the district can adopt this approach using the guidelines that have been created and legalized.

Ms. Anjana Guru presented the topic Market-Based Disaster Risk Reduction focusing on Shelter. At the beginning of the presentation she shared some general context on the shelter situation such as - the shortage of 169 million houses across India, 69 million and 80 million families respectively live in houses with roofs and walls susceptible to damage from disasters in rural India, 99 million live in informal urban settlements with poor basic services, and 1 million houses damages annually due to disasters. She shared some of the identified problems in shelter programming in India under three core areas and they are – governance has a lack of execution capacities, delay payments and no follow-up and support to House For All (HFA) allottees after sanction: markets have failed to cater effectively to the needs of HFA families - huge demand and supply gaps; shortage of trained masons; construction materials vary in quality and lack resilient features; and poor access to information and affordable finance; Communities face challenges with land price, ownership, and possession of clear title deeds, lack information on HFA and construction-related knowledge, and have unrealistic aspirations and misconceived notions on construction quality.



Therefore, to better address the core problem, CRS India identified three pathways for improvement which include engagement with the government agency, access to market systems and actors, and awareness on HFA and resilient housing at the community Level. Following the pathways, they have worked in three districts of Odisha covering 6 blocks with 30 Gram Panchayats. She also mentioned the following as the way forward for future interventions: contribute to the improved implementation of the current HFA schemes and re-design of the next iteration of the HFA scheme (post-2024); improve the quality and reach of information on construction practices, materials, and the HFA scheme amongst target beneficiaries; increase financial inclusion, especially of vulnerable HHs in remote locations; improve access and availability of construction materials to all parts of the state, especially remote rural locations.

Approach: Caritas Bangladesh's Group Cash Transfer (GCT) approach

Group Cash Transfer (GCT) is an approach to provide resources in the form of cash for selected groups to implement projects that benefit either a sub-section of the community, or the community at large ensuring inclusiveness. It's a response modality that seeks to transfer power to the crisis-affected populations to respond to their own needs and priorities.

Caritas Bangladesh, a national organization of the Catholic Bishops Conference of Bangladesh, transferred the cash to the community people following capacity building to handle the whole process appropriately and to reach their goal with achieving desired result. Proper planning, implementation, accountability, monitoring and learning sharing was compulsory components. During piloting the approach, community people gave their consent through signing MOU, a market assessment was done for understanding the existing market system, all possible safety and security control of the cash transfer was setup as part of the whole process. Finally, the community people submit the budget and proposals, open the bank account, purchase the required materials, engage the relevant stakeholders, ensure the quality works by monitoring the works regularly (Caritas Bangladesh Group Cash Transfer SoP).

Through the approach community people of three locations in Bangladesh unleash their resilience on systematic cash handling for implementing a schemes in a sustainable, impactful and satisfactory manner.



Day 2

8. Plenary Sessions



8.1 Shelter and Recovery Response

Mr. Rameshowr Marahatta the Joint Secretary of NDRRMA, **Mr. Bhoj Raj Shrestha**, Under Secretary of MoUD and **Mr. Minar Thapa Magar**, National Coordinator, Housing Recovery and Reconstruction Platform-Nepal jointly presented the topic “From Risk to Resilience: Nepal’s pathway from reconstruction to building resilience.”

They shared their response to the experience of the major earthquake that happened in Nepal in 2015. They showed that around 8 million people were affected, 8,790 casualties, 7,995,454 houses were fully or partially damaged, and 7.065 billion US\$ economical losses were sustained from the devastating earthquake. However, by this time, with the leadership of Nepal government, a total of 759,710 private houses were constructed, 3,385 resettled, 764 KM of road constructed, and 751 health buildings constructed. They also shared some of the longer-term strategy of the Nepal government including the a right to housing for all citizens of Nepal following the constitution of Nepal; under the Janata Awas Karyakram program (People’s Housing Program) 89% of the people will have their own home by FY 2024; under the Surakshit Awas (Safe Citizen) Program replacing 170,000 thatched roof houses with CGI to promote fire; integrated settlement approach with risk sensitive Land Use Plan; and continuity of tranches to buy land and rebuild houses affected by disaster.



They added that for prioritizing localization and minimizing climate-induced damage and loss towards resilience the National Disaster Management Authority established building upon the success of National Reconstruction Authority, for the first time. In this regard, they also expanding to Multi-Hazard DRR and housing reconstruction and settlements recovery; engaging civil societies through Platform like National Housing and Settlements Resilience Platform (NHSRP); following multi-hazard housing reconstruction and land purchasing grant; accounting disaster and loss and prioritizing for reconstruction and development; strengthening capacity of local government to prepare and lead disaster recovery process; assessing risk, visualization and data informed decision making at local level; and ensuring Disaster Resilience Framework and its implementation at all levels (national, provincial and municipal).

They further added that for “Building Back Better, Safer and Greener for a More Resilient Nepal” they focused in 4 sectors - Social Sector, Infrastructure Sector, Productive Sector, and Cross cutting themes. Soon after the 2015 EQ, Nepal took on a 15 year plan for National Housing and Settlements Resilience Platform (NHSRP) with a motto “Safer Homes and Communities for All” and a vision - "Local governments and communities reach their full potential to self-recover and be resilient to future disaster by 2030." The goal of the platform is "Homes and communities at risk are resilient to future disasters."

8.2 Shelter and Recovery Response: Flash Flood 2022 in Bangladesh

Mr. Zahirul Alam, Coordinator - Shelter Cluster Bangladesh, IFRC and **Ms. Tahmina Tamanna**, Programme Associate - DRRF Project, UNDP jointly facilitated the plenary topic: Flash Flood 2022 in Bangladesh.



They started the presentation by sharing the causes of vulnerability of Bangladesh as a disaster-prone area and described the geographical and topographical aspects as the Himalayas located to the north and the Bay of Bengal to the south. They added that Bangladesh is a riverine country and most of the rivers originated from the Himalayas merging into the Bay of Bengal. The rivers and the Bay of Bengal are undoubtedly playing a significant role in the economy of Bangladesh. However, every year, Bangladesh is facing floods, riverbank erosion, and landslides. As a result, every aspect of people's life is in danger. Moreover, there is also a risk of earthquakes in Bangladesh. Bangladesh has tackled 15 major disasters from 2014 - 2022 which affected 42 million

people and severely affected 58 districts. In those major disasters, 9.4 million people became internally displaced. Due to the last 15 major natural disasters, Bangladesh has experienced a US\$ 4,120 million financial loss. These disaster events impacted the shelter sector causing full damage to 483,877 houses and partial damage to 4,131,787 houses, and these numbers are increasing every year.

In response to these disasters, coordination between the government and the humanitarian community has been playing a significant role in Bangladesh. Bangladesh has 11 clusters and 8 working groups in coordinating the humanitarian responses in disasters. The Humanitarian Coordination Task Team (HCTT) is co-chaired by the Ministry of Disaster Management and Relief and the United Nations Resident Coordination Office (UNRCO). In 2019, the government of Bangladesh revised the Standing Orders on Disaster (SOD) in which the current cluster approach was recognized. In the overview of the Shelter Cluster, the speaker mentioned that the Ministry of Disaster Management and Relief (MoDMR) & Ministry of Housing and Public Works (MoHPW) are taking the lead, with two co-leads – IFRC in the emergency phase and UNDP in preparedness and recovery phase.

The key functions of the cluster are coordination, planning and strategy development, assessing the application of standards, advocacy and resource mobilization, monitoring, evaluation and knowledge management, and training and capacity building. Currently, there are 53 members in the shelter cluster. One of the essential components of the shelter cluster is promoting the localization agenda as localization makes an important contribution to the expansion of humanitarian response and the Bangladesh Government has also given importance to localization through SOD. Under the chairmanship of Caritas Bangladesh, the Localization Technical Working Group is making a very effective contribution to localization issues, and the Shelter Cluster is also working on coordination with utmost importance on localization. 29 local organizations have responded to Shelter Responses over the years.

The speakers mentioned that in 2022, Bangladesh was flooded three times from May to June 2022 and 9 districts were impacted severely. The floods affected 7.2 million people. Around 481,827 people were evacuated to 1,605 shelter centres. It was estimated that around 126,375 houses were completely or partially damaged. The government of Bangladesh has extended significant support to affected areas and has been assisting the affected people to overcome the damage. The government provided 4,400 metric tons of rice, US\$ 796,078 cash support, distributed 97,700 dry food packages, 8,400 bundles of Corrugated Iron (CI) sheets, and US\$ 247,000 cash distributed as house allowance, and US\$ 40,000 cash distributed for families to buy baby food. Also, the GoB distributed animal fodder worth US\$ 150,247, and for safe drinking water, and 250,000 water purification tablets were distributed. The humanitarian agencies have been providing shelter support to affected people, as of November 2022 a total of 138,342 individuals have reached and US\$ 1.42 million funds mobilized.



Ms. Tahmina Tamanna

The shelter cluster took some initiatives for flood response by developing IEC materials on housing patterns of the northeast parts of the country, by discussion between the Housing and Building Research Institute (HBRI) of Bangladesh and Shelter Cluster Bangladesh. HBRI technical experts visited the community and based on the existing housing pattern the materials are being developed.

During the recovery response, the Shelter Cluster conducted an assessment that identified 85% of the damaged houses are kaccha houses. The cost of repairing materials increased due to floods leaving people unable to fix their damaged houses. Among the assessed families, 8% were interested in migrating. It was identified that the average worth of fully damaged houses is approximately US\$ 715, and the average worth of partially damaged houses is approximately US\$ 328. To repair the damaged houses the affected families required materials as well as cash support. The shelter cluster followed the community approach like the capacity building of the local builders considering the build back better approach, ensured community ownership for the reconstruction of the houses, developed IEC materials on safe shelter, and provided in-kind and cash support along with safe shelter awareness as shelter recovery assistance. The shelter cluster has planned to provide recovery support to 9,500 individuals from 2,200 families with US\$ 1.5 million fund.

8.3 Green, Resilient and Inclusive Development (GRID): Disability Inclusion

Ms. Leeanne Marshall, Australian Red Cross and co-lead of the Inclusion of Persons with Disabilities in Shelter and Settlements working group for Global Shelter Cluster facilitated the plenary topic "Disability Inclusion in Shelter and Settlements Programming." She introduced the importance of disability inclusion in shelter and settlements programming and mentioned how people with disability face discrimination and can fall behind in accessing support in the face of an emergency or crisis, even though they are often disproportionately affected in such situations.

Shelter and settlement activities can play an important role in safeguarding the health, security, privacy, and dignity of people affected by disasters and crises, however, we know that many shelter and settlement activities still do not systematically include persons with disabilities. For that reason, the Australian Red Cross, IFRC, IOM, NRC, and CBM set up the Global Shelter Cluster ‘Inclusion of Persons with Disabilities in Shelter and Settlements programming’ working group in 2018 to improve resources, tools and approaches to inclusion across the sector.

The main purpose of the presentation was to share information on the newly updated All Under One Roof: Disability Inclusive Shelter and Settlements in Emergencies guidance materials, which can be used to support more disability inclusive programming. The original All Under One Roof guidelines were developed in 2015, through a partnership of IFRC, CBM and HI (Humanity and Inclusion). They were updated in 2021-2022 through a consultative process involving shelter and settlement practitioners, disability experts and organisations of persons with disabilities along with a detailed review of relevant guidance and frameworks. This process was led by the Global Shelter Cluster working group on Inclusion of Persons with Disabilities and supported by the World Blind Union. The update was intended to streamline and update the guidance materials to present relevant practical solutions and achievable standards for shelter and settlements practitioners to follow. They demonstrate a commitment of shelter and settlements organisations to improving inclusion of persons with disabilities and accessibility in sectoral programming.



Ms. Leeanne Marshall

The updated All Under One Roof materials are now live on the Global Shelter Cluster website (<https://shelter-cluster.org/resource/all-under-one-roof>), therefore, practitioners can easily access information, guidance and tips to improve inclusion of persons with disabilities in shelter and settlements programming. The advantage of the materials living on the Global Shelter Cluster website is that it has the potential for instant built-in translation into different languages. The website is user friendly and can be accessed by personnel working in the sector - staff members, and volunteers, alike.

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Within the guidance materials the following guidance are also included: Key concepts and guiding frameworks around disability inclusion and shelter and settlements, Tips for mainstreaming disability inclusion in all phases of emergency shelter and settlement programming, Design recommendations and material support options, and Considerations to be taken based on mode of delivery and different forms of tenure. There are also handy downloadable checklists at the end of the main sections of the guidance based on phases of disaster response (assessment and planning/ implementation and monitoring) and type of response (shelter/ settlements). These include the key things you need to think about in these scenarios to improve inclusion. Along with the guidance materials themselves, the All Under One Roof ‘hub’ on the website includes other related information and tools such as a discussion forum, case studies and other linked resources such as templates, which will continue to be added to.

To complement the update of the All Under One Roof guidance materials, the working group has also been updating the associated training materials. An online and a face-to-face pilot of these new materials are planned for the first half of 2023. Please contact the working group if you or your organisation would like support in training around disability inclusion in shelter and settlements.

8.4 Shelter and Recovery Response: Moving from Relief to Recovery

Mr. Arvin Headlos, Researcher from University of Sydney, presented one of the research studies he is associated with under the “Global Shelter Cluster Relief to Recovery Research” in the plenary session. The research is being jointly conducted by the University of Sydney and Global Shelter Cluster. The research question is - "Why are there barriers to connecting the relief and recovery of those who have lost their shelter and settlements in humanitarian crises?" The objective of the research work is to explore how recovery after disaster and conflict has been conceptualized and defined; explore the impact of humanitarian shelter and settlement approaches on recovery; and identify the barriers which humanitarian agencies need to overcome to better connect their support to emergency relief and longer-term recovery. The Global Shelter Cluster has prioritised two core areas in the study, which they need to leverage for longer-term advocacy and support.

8.5 Green, Resilient and Inclusive Development (GRID): Sustainable Housing for Green, Resilient and Inclusive Development of Bangladesh

Mr. Monjur Parvez, Research Architect at House Building and Research Institute (HBRI), Bangladesh presented one of their initiatives in the plenary session. He described some of the disaster resilient housing including cyclone resilient shelter and Flood resilient shelter and described the activities of the HBRI including their working areas. HBRI has developed technical guidelines, vulnerability assessment reports on the seismic data of Bangladesh. They have also established standard guidelines for the rural housing that include disaster resilience measures. FRIENDSHIP an NGO, currently implementing a project at the Coastal Belt using their disaster specific rural housing guidelines. Within that project, they used participatory tools and engaged the community in the construction phase. In addition, they also promoted the use of local materials for construction including bamboo and timber. They are also working on flood resilient and flash flood housing.



Monjur Parvez

8.6 Shelter and Settlements Innovation

Ms. Karishma Shams, Senior Assistant Architect at Department of Architecture, Ministry of Housing and Public Works, Bangladesh, presented some of their architectural projects in Bangladesh. She shared that they work using innovative construction design that looks to address several challenges and considers environmentally friendly approaches. She shared various examples including the telecommunication building, Dockyard Bangladesh Coast Guards, Marine Fisheries Research Institute, Multi-stored office and parking building of the Department of Transport ministry, Education Engineering Department office, and the head-quarter of the Parjatan Corporation. In all these projects green energy is promoted including the use of solar energy, a green buffer, low carbon emission-based materials are utilised, and the structural design follows the natural ventilation to promote lower energy consumption.



Ms. Karishma Shams

8.7 Shelter and Recovery Response

Farid Ahmed Sagar, Deputy General Manager - Climate Actions at Friendship Bangladesh, outlined the use of environment friendly shelters for flood and cyclone affected areas. The project used a cluster village approach. Housing design considered the flow of flood water and used potable soil in the construction of the plinth of the house.

For each construction process community members directly contributed labour. In targeted communities the cluster village approach looked to address not only individual shelter needs but also sanitation, the constructed of a school, the installation of a tube well, excavation of the pond, construction of the community center, and assistance towards the preparation of the area for vegetable gardening at the right place. The speaker shared the community construction mechanism went from footing to block masonry. The cyclone shelter design was disability accessible and used environmentally friendly materials.



9. ASF Future and Organization

A separate parallel session on "**Asia Shelter Forum (ASF) moving forward**" was held with interested participants. The session was jointly facilitated by **Mr. Minar Thapa Magar**, National Coordinator-General, National Housing and Settlement Resilience Platform (NHSRP) – Nepal, and **Mr. Sanjeev Hada**, Associate Director, Habitat for Humanity International, Asia Pacific Regional Office.

The session was co-facilitated by **Mr. Ariel Sadural**, Technical Advisor for Shelter and Settlements, Humanitarian Response Department, Catholic Relief Services, **Ms. Leeanne Marshall**, Shelter Technical Lead, Australian Red Cross and **Mr. Robbie Dodds**, Roving Focal Point, Shelter Cluster Coordination for Asia Pacific, Australian Red Cross. **Mr. Dave Hodgkin**, Global Director of Shelter and Settlements at Miyamoto International assisted the facilitators as technical advisor.



The focus of the session was to re-share the vision and objectives of the forum and consult and clarify roles and responsibilities of different governance structures. During this session participants were asked to validate the vision of the forum and volunteer individuals or organizations to assume key roles and/or responsibilities.

The facilitators of the session presented that the aim of ASF was to be a platform for Shelter and Settlements practitioners to help one another by sharing ideas, best practices and learnings across Asia and the Pacific region. To date a group of volunteers from agencies or individual shelter practitioners have formed a committee to organize the event in the country. Upon completion of the forum, the event is handed over to another country where the next forum will be organized.

There is also a wider group of interested participants in the region that have communicated since 2019 to provide technical guidance and support to upcoming forums, but this wider group is yet to be formalised. The Asia Shelter Forum took place in Thailand in 2015 and 2018, Indonesia in 2019, Nepal in 2020 (virtual) and 2021, and the most recent in 2022 was held in Dhaka.

The facilitators shared the primary reasons for establishing a dedicated forum being to:

- provide independent, neutral and reliable support to set up a regional shelter forum theme and goal for each year;
- balance the interest and expectations of all stakeholders to capture lessons and best practices in a website or repository for easy access to all shelter practitioners;
- trial new ideas and engage more practitioners across Asia and the Pacific;
- inspire more local practitioners to design and lead the sessions;
- maintain the spirit of the event as a collective, open forum for practitioners for the advancement of the sector; and
- to encourage more shelter partners to engage in the forums.

During this discussion session participants were divided into groups to explore four different points and review the Working Group (WG) TOR.

Group one was tasked with working on the Vision, Mission, Goal and Objective of the Working Group. Their feedback was to clearly define the Shelter and Settlement practitioners and their needs- since we are focusing primarily on humanitarian needs, and secondly, are we open to exploring the possibility to engage with people working on rural housing, shelter for poor and marginalized people, people displaced due to development needs, other IDP etc.

Group two discussed needs and boundaries of the WG. They suggested the forum continues an open platform approach that promoted sharing and learning. They recommended designing an agenda that allowed for different days to offer different things (e.g., separate days for shelter practitioners only to discuss challenges, other bigger days for presentations and wider discussion). This approach would need to factor in geography, sectoral limitations, ethical considerations, roles and responsibilities, etc.

Group three provided input related to the regional committee and partner government's roles and responsibilities. The group recommended the development of a minimum setup agenda for the ongoing forum, which could then be contextualized by the local organizing teams every year; to have coordination with other regional and Global shelter forums (e.g., planning dates to align with those and other constraints such as hazard seasons); to set the agenda for ongoing rotation of the forum and balance between regional and country level priorities; to set aim for equal, collaborative participation from local practitioners, local organizations, academics, donors and government actors; and to consider a committee that is inclusive and diverse.

Group four explored the in-country organizing committee and its secretariat. They recommended that each forum have a local organizing committee that linked into the regional committee to set the agenda; the organizing committee should strive to be flexible and utilize new ideas and knowledge from the region; set goals and objectives that promote collaboration including with government partners; consider a committee that is inclusive and diverse; create a library of all learnings, practices, lessons that are exchanged at the annual forum meetings; use information technology system including social media to broadly disseminate updates on the ASF; compiling the list of humanitarian organizations that were involved in previous forums; and establishing a set of principles on how working in partnerships can be developed between agencies and practitioners.

At the end of the group work session, some action plans were set with clear next steps. For example session leads to finalise the terms of reference based on the feedback; session leads to start discussions with participants who volunteered to engage in the regional committee to move forward with planning; and session leads to work with Global Shelter Cluster representatives to contribute to the annual global shelter forum calendar.

Lastly participants discussed the importance of recognizing that the forum was originally developed by a small group of practitioners and had now grown to be a much larger platform with broad participation from a range of actors. They felt in the future it would be critical that the forum maintain its mission, objectives and independence so that it did not deviate from its intended purpose of sharing, learning, exchange and helping one another to better assist the communities we serve.

10. Technical Sessions: Day 2



10.1. Coordination Mechanism and Local Capacity: Tools and Experiences in Participatory Processes and Stakeholder Coordination for on-the-ground response to Shelter and Settlements

This parallel session discussed the best practices in coordination mechanisms and shared the experience of coordination at different levels for strengthening the capacity of coordination in disaster management initiatives. The session was facilitated by **Ms. Jia Cong Ang** of UN-Habitat, **Mr. Kirtee Shah** of Ahmedabad Study Action Group, **Dr. Krishna Prasad Dhital** of RADO-Nepal, and **Mr. Aditya Singh** of Aabhat- Hunnarshala.

Ms. Jia Cong Ang started the session with an overview of UN-Habitat's role in profiling and planning for coordination in shelter and settlements. She discussed some of the collaborative tools in response to humanitarian context that had been developed with partners including UNHCR. She outlined how UN Habitat, through its program, aims to utilize Urban and Spatial Planning as a tool to bridge the gap between humanitarian and development activities to address the commitments within the global compact on refugees, global compact for migration, agenda 2030 and the SDGs. UN-Habitat and UNHCR have also jointly published a settlement profiling tool. The profiles use a spatial lens to provide an overview of physical, social-economic and policy dynamics that affect a settlement. This tool concludes with development scenarios and recommendations of potential ways forward. Three core stages are utilised under the profiling process: a. data collection (spatial analysis) b. analytics and visioning c. validation and endorsement.



Mr. Aditya Singh shared his organization's experience from the Nepal earthquake response. After the 2011 earthquake a network of organisations was formed in Kutch to rebuild including Hunnarshala which was registered in 2003. Following the earthquake Hunnarshala started working in the urban areas of a small city called Bhuj in Kutch. The initial work was done with the leadership of a women's collective group called Sakhi Sangini (Self Help Group-SHG). The whole city was mapped, and the women's group identified the clusters and homeowners who needed houses. During this process Sakhi Sangini looked at the legalities of land ownership. Upon completion of the mapping and identification process an implementation committee was formed, consisting of members of Sakhi Sangini, along with Kutch Mahila Vikas Sangathan (KMVS) and Hunnarshala.

KMVS built capacities of the SHG groups and appointed their representatives onto the implementation committee. 150 families were selected in the first phase, and they decided what types of houses they wanted to construct. The partner organisations and the other families helped the beneficiaries in the construction phase. Beneficiaries directly selected the type of house they wanted to build.

Households unable to undertake the construction directly were linked to community support systems or other households who could provide the construction support. This community driven housing was linked into the government schemes. This was then piloted under a government housing scheme called Rajiv Awas Yojna (RAY), and three sites with 314 houses were developed. In the pilot phase, an extensive participatory approach was followed in which owner-driven implementation was promoted. Several house layouts were developed which addressed cultural practices and preferences of the selected beneficiary households.

This work was further expanded into housing projects in 8 other cities in Gujarat on behalf of the government. In addition to housing, livelihood was identified as an integral part of the housing strategy. Street vending was one of the most prominent occupations and work on public spaces to allow for economic activity was also done in the piloted city of Bhuj. The presenter discussed the importance of tapping inherent traditional knowledge within the communities for housing programs and that the need to ensure local knowledge was supported and not weakened by any initiative. He also added that various training and workshops were undertaken to consult the community as well as facilitate the processes.

The presentation concluded with an emphasis on bringing the communities to the centre of the housing process. The work of the humanitarian agencies was to facilitate the validation process and to give a platform to the communities to make informed decisions.



Mr. Kirtee Shah discussed and shared his experience from two specific projects set in both urban and rural contexts. He focused his presentation on the challenges in the urban context, rural development and housing, community engagement and participation, and collaboration.

He started his presentation sharing the context of urbanization. He shared that cities globally occupy just 2 percent of the land but consume 75 percent of the resources and throw 75 percent of the waste into the environment. Going forward, beyond the COVID-19 crisis, the country will have to recognize that with nearly 90 percent of the labour force works in the informal economy, where their conditions of working in fact, the entire social contract must change. He reiterated slum dwellers and other poor cannot be left in conditions of ill health, misery, and want they were presently being forced into. Therefore, with Climate Change knocking on the door, if not already in, both short-term problem-solving and long-term planning must include a sustainability framework. The group needs to consider that South Asia's urban challenge is the most demanding –both in terms of numbers and complexity it will pose. To share the context of participatory housing, he mentioned that, in meeting the housing challenge in South Asia, while developing strategies, plans, projects and institutions it would help keeping in mind the fact that the region has a strong tradition in self-help, people built, community produced/owner managed housing knowledge. It is rarely known and recognised that the biggest producers of housing in this region are not architects, builders or contractors nor the government.

Best Practices: Participatory/consultative development intervention

Ahmedabad Study Action Group (ASAG), a small non-profit NGO, was started in 1971 in India by a group of young professionals. The NGO focused on increasing the communities' confidence by taking a participatory/consultative development approach to its interventions. In the mid-'70s, it implemented the "Integrated Urban Developments Project" at Vasna, Ahmedabad in India, under which 2250 flood affected slum families (15,000+ individuals) were rehoused in a new township on the outskirts of the city. This success of the project was directly attributed to the persistent advocacy by this small NGO of the specific needs of this community. The project consisted of the construction of 2250 low-cost houses, infrastructure services, and social amenities. During the implementation techniques such as community mobilization, income supplementation, and other support services were provided. The township was designed by ASAG through a participatory process and implemented within 18 months. The small houses (250 sq. ft) were built around community courtyards and families that wished to directly work on construction were moved to a settlement near the project site.

The project has been seen as one of the most successful low-cost housing and flood rehabilitation projects nationally and internationally for its approach and achievements. Its main features which are still relevant today include – the partnership between the public and private sectors ; role of a non-profit NGO in advocacy, design, implementation, pre and post construction community mobilization work; innovation in organizational design that decentralised power, authority and decision making; low cost construction; people centric participatory design of houses (built around open to sky green courtyards); participatory and community driven house allotment system that gave households choice in the selection of neighbours to each individual family and they choosing neighbours defying known social, cast and religious divisions and stereotypes (Muslim and Hindu families, known to be hostile to each other and with a history of riots in the city, sharing toilets, backyards and courtyards as neighbours, voluntarily selected); skill development and small enterprise development activities for income augmentation along with housing; high density settlement despite only ground floor construction (communities' top priority); institutional credit for buying cycles for those who wanted to retain their work/job at or around the old settlement, and; voluntary relocation (only those who agreed to move were resettled at the new township; a few who refused to relocate were allowed to retain their old shelter in the old settlement by the river). Even after almost 50 years since its implementation, it is not only relevant but has many lessons for the designers, planners, and authorities on low-cost housing, post-disaster rehabilitation, participatory planning, and design and integrated development projects.

The biggest producers of houses in this region are the common people- ordinary citizens. If we take urban housing in India as an example: out of 10 houses that get constructed in a city, one is produced by the public sector, 2 to 2.5 units are produced by the private sector while 6.5 are produced by the general public. And of this 6.5 built by the general public 3 to 3.5 units are produced by the slum dwellers. The informal sector is therefore still the largest producer of housing in Indian cities.

Rural housing in India, despite massive government programs, still has a large role for the communities. In India, there are 160 million houses in 638 thousand villages housing 950 million people. Out of these 160 million rural based houses, 60% of houses are constructed by the residents directly. They not only design and construct, finance them.

In a good participatory housing project, it is not so many people participating in the external agency planned and developed program but the agency participating in the people's program. Genuine and well managed participation, it has been found, delivers more than cost saving, better quality fast construction and client satisfaction. It helps build community confidence, leadership, solidarity and a sense of togetherness that goes beyond construction.

Case Study-2: Sri Lanka 50,000 houses project for the war victims

The 50,000 houses project in Sri Lanka is a joint initiative of the governments of India (financial contribution of nearly Rs 16,000 million; assistance in form of constructed houses) and Sri Lankan government (land for houses, rehabilitation or reconstruction of physical and social infrastructure and selection of the beneficiary families). The project is meant to support families, mainly of Indian origin, who lost their homes, belongings, livelihood and family members during a 30 yearlong civil war in Sri Lanka. After the war ended in 2009, the project was launched in 2012 and completed in 2016. The houses have been constructed in 300 locations in the Northern and the Eastern provinces where the conflict was the most intense and destructive.

The main features of the project are that 44,000 houses were constructed following an owner driven modality which included finance management, selection of design type, time of construction, construction team, materials for construction and their procurement arrangement. The four internationally contracted facilitating agencies only provided technical assistance and logistical support. The outcome of this approach was rapid construction, cost saving, better quality construction and workmanship, higher self-contribution for larger size or better specifications, and client satisfaction. Amongst participating communities it was observed heightened self-confidence, a sense of dignity and achievement, a spirit of cooperation and some people displaying leadership quality. For a war-torn community these are significant benefits achieved through a simple arrangement—trusting them with decision making and handing over finance management. Not a single house is smaller than 550 sq.ft and made of less quality materials. Each house has two beds, a kitchen, a hall (lounge area) and sanitary facilities. The government of India has provided Rs 5.50 lakhs (SLRS 0.55 million), and every other family has added their own savings or borrowed money to add an extra room or upgraded specifications. Each family was given money in four instalments via direct bank transfer to their designated bank account at predetermined stages of construction. The presenter shared the experience of one woman who participated in the process: A woman narrated how she, who had contemplated ending her life three times due to the death and losses in the family during the war, regained her self-esteem, confidence and composure through the process of construction, house making and decision-making entailed in the process. She narrated that in the process of building her house, on her own, had emboldened her, given her confidence and equipped her to face the challenges that life posed.

Dr. Krishna Prasad Dhital presented the topic Coordination Mechanism and Local Capacity on Shelter and Settlement Response to Build Common Understanding, and to share the practical experience of RADO-Nepal in S&S.

He mentioned the significance of having substantial stakeholder coordination, collaboration, and engagement in programme design and implementation. It helps to have a prompt and immediate response to the affected population. During the initial implementation process, they have taken approval from different layers of the government authority and finalized the beneficiaries list in coordination with the government offices. The masons were then given capacity building training and constructed the houses using the specified designs. During the implementation process, standards of stakeholder coordination for the shelter and settlement program were implemented and responsibilities were made clear during the emergency response. At the country level a single platform had been created for multi-stakeholder coordination and the creation of a settlement standard. RADO-Nepal implemented the Shelter and Settlement programme in 2015 in the Makawanpur district after the Gorkha Earthquake. RADO-Nepal's partnership with Tearfund ensured newly constructed houses were handed over to the single women within 3 months.



The organization supported the construction of 700 housing which were designed to consider both ecological and environmental issues and included the geographic region. In each newly constructed dwelling rainwater harvesting gutter pipe systems, toilets, solar system and lightning were installed. The project encountered challenges including: political influence, lack of available materials, geophysical conditions, and the maintenance of quality. However, the project team identified that community ownership was critical as was shelter and stakeholder coordination, mutual accountability, mobilizing local groups, and flexibility. Finally, the use of stakeholder mapping, localizing the shelter and settlement mechanism, and ensuring multi sectoral engagement all played a key role in the successful coordination of the project.



10.2 Shelter and Settlements Innovation: Technical Solutions and Approaches

This session discussed different technical solutions and approaches focusing on innovation in the shelter and settlement sector. **Mr. Magnus Wolfe Murray**, DFID, facilitated the session while **Mr. Ram Sateesh Pasupuleti** of the Indian Institute of Technology, Roorkee, **Mr. Markus Sprenger**, SMSD Sector, Cox's Bazar, **Ms. Shegufta Newaz**, IOM, **Md Sultan Mahmud**, UNHCR and **Mr. Bjoern Soederberg** of Build-up Nepal co-facilitated the session.

Mr. Ram Sateesh Pasupuleti presented the topic "The production of space in disasters and climate change contexts". He started his presentation with sharing the difficulties and challenges for integrating CRR and CCA and then shared the 6W framework of Lei and Wang who have recognized the need for a more explicit framework to transfer the theoretical arguments into some operational instruments. He also shared on the Yonmenkaigi system method, originally designed in a local community in Japan, which comprises four stages: clarifying the main theme by SWOT analysis, drawing up a Yonmenkaigi chart by four groups, debating to improve the implementation of collaborative action plans among four groups, and presenting joined-up action plan of the groups. He added that cultural mapping is concerned with the comparability of traits at the macro scale; its evidence may assist in heightening awareness for certain kinds of cultural attitudes and behaviour patterns, but only as a preparation for the encounters at the micro scale. He concluded his presentation by sharing the reproduction of space in DRR and CCA diagrams.

Mr. Bjoern Soederberg presented the topic "Affordable houses through micro-enterprises". He mentioned that Build up Nepal, a private entity in Nepal, has been working with a mission to make brick houses eco-friendly and affordable for poor families using local materials. To make the houses disaster resilient, they used a specific type of brick and other local materials which have reduced the cost of construction.

Best Practices or Case Study: Affordable houses through micro enterprises

Building up Nepal, a Private engineering institute in Nepal, has applied a model of housing for private sector engagement that ensures affordable, disaster-resilient houses through micro-enterprises, aimed at making brick houses eco-friendly and affordable for poor families. To achieve this objective, CSEB interlocking bricks are used in the Scalable Micro Enterprise Model, in which entrepreneurs build their own homes with their financial and physical effort. Micro-entrepreneurs are typically poor families in vulnerable communities.

This model has several advantages, such as using 75% less cement and manpower, and walls that cost 40% less than conventional models. Not only does this model ensure disaster-resilient housing for the poor, but it also creates mass job opportunities. According to sources, 306 entrepreneur communities have been involved, with 8,120 houses built and 3,170 jobs created. Additionally, this model has saved 74,227 tons of CO₂, making it an environmentally friendly solution.

Mr. Markus Sprenger, SMSD sector, Cox's Bazar, **Ms. Shegufta Newaz**, IOM, and **Md Sultan Mahmud**, UNHCR jointly presented the topic: "From Macro Settlement Plan into Site Planning and Shelter" during the session. To make the audience understand the context, they started the presentation by sharing some of the major challenges within the camps' environment e.g., congestion, insufficient basic services, limited access, exposure to natural and man-made disasters, deforestation, forest degradation, & biodiversity, construction in riverbeds and on hill slopes, water pollution, human-wildlife conflict, shrinking budget and resources, and uncertainty over the future. Their presentation helped the audience of this session to understand the innovative and inclusive settlement planning for the FDMNs. They concluded their sharing by sharing some of the best practices in camp settlements.

Best Practices or Case Study: Macro Settlement Plan into Site Planning and Shelter in Cox's Bazar, Bangladesh

The International Organization for Migration (IOM), in collaboration with the United Nations High Commissioner for Refugees (UNHCR) and Site Management & Site Development sector (SMSD), has developed an macro settlement plan to guide reorganizing the camps and surrounding areas in Cox's Bazar, Bangladesh for Forcibly Displaced Myanmar Nationals (FDMN) to overcome lots of challenges specially congestion prevailing in the camps. This plan is designed considering best use of land and other factors to create a more suitable and resilient spatial environment through a three-layer incremental re-planning process.

The first layer focuses on establishing a core accessibility network and infrastructure, while the second layer focuses on reprogramming density, creating service hubs and economic nodes. The third layer focuses on restoring a blue-green network to reduce disaster risks and promote environmental rehabilitation.

To ensure the successful implementation of this plan, IOM, UNHCR and SMSD Sector are working closely with other actors and stakeholders related to site management and development maintaining effective coordination. This includes reorganizing and rearranging camp areas, shelters, and reducing the density of beneficiaries in closed and vulnerable areas. Double-story shelter construction may be one of the options to reduce density during resettlement.

10.3 Shelter and Recovery Response

Community Based Approach and Self Recovery for Shelter and Settlements

This technical session focussed on different programming approaches in shelter and settlement programming. **Mr. Sanjeev Hada** of Habitat for Humanity International, **Mr. Dave Hodgkin** of Miyamoto International, **Ms. Barsha Shrestha & Mr. Sanjaya Uprety** (Ph.D.) of Tribhuvan University, **Mr. Bill Flinn** and **Ms. Sue Webb** of CARE, **Md Abdullah Al Mamun** of CRS Bangladesh, **Ms. Irin Murmu** of Caritas Bangladesh jointly facilitated this session based on the research study and experience in program implementation.

Mr. Dave Hodgkin conducted the session with a 'Disaster Imagination Exercise'. The exercise was based on the work of Professor Maguru Maki at Tokyo University, who says that "unless people can truly imagine a disaster, they can't truly prepare for one."



The aim of the exercise was to help people better understand how to help the "other 95% people", meaning instead of running agency-designed/driven shelter programs, focus more on understanding and supporting the diversity of self-recovery.

Key points for the imaginary game: While doing this exercise, participants need to identify whom he/she did not know previously, meet them and sit together. They need to imagine at 10 in the morning they are in their office and suddenly an earthquake happens in the area. Followed by the earthquake, they need to think after a week no organization has come to visit or provide any support. Then, 6 weeks have passed and still no one has helped them. Therefore, how will they recover? Soon after that, a local NGO arrives to help. What would be the required support needed for them at that time? But by that time people have managed to recover by themselves. A few questions might be asked of the participants to think deeper about the consequences e.g., people who live in apartments, what will happen to them, people who live far from their families, what will they do? In response to the questions, the participants might respond that they will try to get support from their family or take shelter in the family. This is exactly what people do - people's first choice is to get support from family and most importantly around 96% of affected people do their own self recovery.

Mr. Bill Flinn and Ms. Sue Webb presented the topic: "Guidance for supporting shelter self-recovery" during the session. Referring to a book named "Pathways home", they shared three identified building blocks which are - facility and accompany, community engagement, and context analysis. They talked about the two-part key parts of the book. The first part of the book is about self-recovery and how they support the process. This section provides theoretical underpinnings and lays out the building blocks, general principles, and rationale for approaches to support shelter self-recovery. It describes factors influencing self-recovery, highlights potential benefits and challenges, and shows the value of supporting shelter self-recovery to increase reach and impact. The second part of the book is about the elements required to make the process successful. This section outlines the elements required for successful support to shelter self-recovery and offers practical guidance to those implementing a shelter self-recovery approach.

Md Abdullah Al Mamun and Ms. Irin Murmu presented the process of the Community-Based Approach (CBA) based on the experience and practices of Caritas Bangladesh – a process that Caritas has been following for over 50 years in Bangladesh. According to them, in CBA, communities undertake a leadership role and are active partners in the decision-making, utilizing their insights, knowledge, skills, capacity and resources.



Ms. Irin Murmu

Best Practices or Case Study: Community Based Approach (CBA) in Bangladesh

Ms. Irin Murmu and Mr. Abdullah Al Mamun duo shared that till the date Caritas Bangladesh piloted the approach in various fields. Finally, they piloted infrastructure development works that comprised constructions of bridges, roads, houses along with latrines where the community people were the lead. Thus the community people select the pilot area, informed the stakeholders about the process, identified the need of the community, made the design of the structures, prepared plan, deal the funds following a standard accounts, implemented the interventions, monitored the activities and also prepared what activities need to be done in future to make the structure sustainable. The activities have been piloted in three locations of Bangladesh e.g. Headman Para & Baganpara Para in Bandarban Hill district, Rahmanpur of Uttar Sakuchia union in Monpura Sub-district under Bhola district and Pekua Sub-district under Cox's Bazar district seen much accepted by the community people. (Caritas Bangladesh CBA Guideline)

The pilot unleashes that the community people have immense potential to run a project complying all stipulations of the project on their own along with ownership building, if their capacity is built.

In this way, it often enables more efficient and effective use of external assistance, as the communities' priorities are reflected in programming, and long-term ownership is enhanced. They also shared the steps of CBA with the participants and the steps are – 0. preparation, 1. Introduction, 2. Organization and Coordination, 3. Assessment, 4. Mapping and Planning, 5. Tenure, 6. Group Cash Transfer, 7. Implementation, 8. Maintenance and, 9. DRR and Future Planning Improvements.

Ms. Barsha Shrestha & Mr. Sanjaya Uprety (Ph.D.) presented on the post disaster resettlement policy objectives and outcomes from the Nepal case study. They shared that the Gorkha Earthquake resulted in massive loss of lives and property across 32 districts. With the specific objective of the study, they tried to highlight the problem of resettlement policy limitations and potential for the self-recovery in resettlement programs in Nepal. They found that in the recovery framework, the responders practiced the use of local “Parma” system (traditional labour exchange practice), labour contribution for construction, material contribution (e.g woods), local users committee as a mediator between government agency and affected households, and a part of finance raised by the users committee. However, they added, the local construction knowledge such as using stone, reflection of socio-culture, environment in the space organization and design, leveraging the local borrowing system (aincho-paincho), and the inclusion of new livelihood opportunities (woodwork skills of community) were ignored.

They identified a number of key challenges such as low satisfaction rate on issues such as number of rooms in the constructed dwellings and the size of the houses, not enough space for the cattle, people were very aware to lose their tradition, and the use of one design for all which did not meet everyone’s needs. They also shared some of the learning from the study. For example the government led top-down resettlement policy focused on structural safety and infrastructure, ignored socio-cultural, environmental needs and the community felt stressed by the process. While participatory process was adopted, the housing problems showed issues of real participation (lack of internalization); although self-recovery concept was not used, the resettlement program exhibited components of self-recovery to include the social, cultural and environmental needs, and the self-recovery practice, although not widely used in the context of resettlement, it has the potential to lead to successful resettlement policy outcomes.

10.4 Green, Resilient, and Inclusive Development (GRID): Greening the Shelter Response

This technical session created the opportunity to discuss the best practices, lessons learned, and challenges in green shelter programs in the Asian context. The session was facilitated by **Mr. Jamie Richardson** of CRS and co-facilitated by **Mr. A K M Zahirul Alam** of Shelter Cluster Bangladesh, IFRC, **Mr. Aminul Haque** of Swedish Red Cross, **Mr. Mahavir Acharya** of Hunnarshala Foundation, and **Mohammad Abu Sadeque**, PEng. of Centre for Housing & Building Research (HBRC).

Mohammad Abu Sadeque, PEng. presented the topic “Zero Energy Shelter” during the session. To assist the audience understand the topic more fully, he started his session by describing some of the rural housing typologies in Bangladesh and the materials (CGI sheet, bamboo, mud, wood, brick, straw & thatch) used for its construction. He also shared some of the limitations of conventional building materials, considering brick as one of the materials resulting in agricultural topsoil loss; deforestation; environmental pollution; increases risk of earthquakes; increases building mass; increases construction time; not affordable for all. Similarly, other traditional materials also have limitations. As bricks has been impacting agriculture as well as the environment heavily - according to the data of the Ministry of Environment, the major cause of air pollution in Dhaka is the brick kiln (58%) - the government is moving towards banning the Clay Burnt Brick. Instead encouraged the use of ferrocement or concrete blocks for rural housing and riverbed sand and soil for manufacturing blocks.



Considering all these issues, such as energy consumption, agriculture and environment friendliness, disaster resilient and sustainable Shelter, and affordability for low-income people, HBRC innovated "An Energy Globe Awarded Project" which he, the presenter, discussed in the session showing some comparison data on other shelters.

Mr. Mahavir Acharya talked about Innovations and technologies in shelter response. He emphasized the importance of trusting the skills and knowledge of the community as the existing rural infrastructures had been almost entirely built by the villagers. Going forward he reiterated the importance of rural communities directly building themselves – with outside support, to ensure they retained confidence in their skills and abilities. He added, it is proven that when outsiders take sudden entry and start work, the economy of that area will not restart, and a “relief” mentality will set in.

He then discussed the stabilized mud techniques as an alternative to burnt brick in which cement and lime are used as stabilizers, reduced embodied energy (70% less than burnt brick), plastering and painting are not required, and good wet compressive strength. Lastly, he talked about the Ramdev Nagar Dome house and discussed various features of the house. He concluded the session by saying that unreinforced masonry domes are indeed capable of withstanding ground accelerations if the supporting systems (walls and ring beams) are designed to meet earthquake-resistant standards.



Best Practices: Innovations and up-gradation of technologies in shelter response

Hunnarshala Foundation is a not-for-profit organisation based in Bhuj, Gujarat, working towards sustainable habitats. It began operation following the 2001 earthquake in Kutch with an objective to capacitate people for reconstruction of their habitat. It focuses on generating understanding of the local wisdom, context, and improvement techniques in building communities and looked to utilise local craftsmen to create opportunities for livelihoods in the long term. It has applied some innovations and upgraded technologies in shelter response. One of the techniques that is being mainstreamed is “stabilized mud techniques as an alternative to burnt brick/adobe” in which cement and lime are used as stabilizer. There is no burning in the manufacturing, which reduces embodied energy (70% less than burnt brick) and the process does not require plastering and painting to have good wet compressive strength.

Free vibration test and base impact test has been also done in the “Shock Table Test at BMS Engineering College Bangalore” facility. The building model was able to withstand a total of 21 impacts with accelerations ranging from 1.33g to 2.13g. The acceleration in shock table ranged from 6.35g to 8.49g. The natural frequency of the model reduced to 15.25 Hz (after 10th impact) from a natural frequency of 17.63 Hz before the test. The total energy taken up by the model is approximately 88,500J. Thus, it can be concluded that unreinforced masonry domes are capable of withstanding ground accelerations if the supporting systems (walls and ring beams) are designed to meet earthquake resistant requirements.

Mr. Zahirul Alam and **Aminul Haque** jointly presented the topic Greening the Shelter Response focusing on the Environmental Country Profile (ECP) of Bangladesh. They shared that the objective of the ECP is to provide the Shelter Cluster and partners with country-level environmental information to operationally promote preparedness, sustainability, encourage resource efficiency and apply an approach that serves to protect, restore and improve ecological values.

The key points of the ECP document are applicable to other sectors, the disaster response toolkit, the template can be adapted to the country context and should be viewed as a living document subject to regular updates. The document is divided into three parts - a cover outline summarising the profile & highlighting the most important environmental issues, a checklist to ensure practical implementation & that all ECPs are approached using the same level of detail & same sectors are considered, and annexes: expanding on topics to offer more in-depth information/guidance.

10.5 Cash and Markets

Cash and Markets intervention on Shelter & Settlements and recovery response

The participants of this technical session reviewed their knowledge of Cash and Market-oriented programming and discussed the best practices, lessons learned, and challenges in Shelter & Settlements and recovery response. The session was facilitated by **Ms. Marshall LEEANNE** of the Australian Red Cross and co-facilitated by **Ms. Divya Chand & Ms. Shweta Sundar** of Lokal Habitat Labs, and **Mr. John Rezel Day** of CRS Philippines.

Mr. John Rezel Day presented Market based shelter programming in humanitarian response including lessons learned and best practices. He provided a 10 years overview of CRS' market-based response applied to various emergencies in the shelter sector. He then shared CRS' specific experience in the emergency response to the recent 2022 Typhoon Rai.

Cash is inherently unrestricted but can be conditional, and "cash for shelter" is relevant, effective, and impactful. CRS designs its life-saving interventions on WASH, emergency shelter and food security using in-kind, voucher, or cash modalities. It worked with local market actors and sensitized the targeted population on prioritizing the use of cash for shelter to rebuild and recover faster. He presented Super Typhoon Rai's massive impact in the Philippines in December 2021. The ability of the government to fully address all needs was not realistic given 11.8 million people were displaced of which 1.3 million people's houses were totally damaged in the typhoon hotspot area. CRS innovatively respond to 4,748 households by providing multi-sectoral support such as shelter repair kits, cash for shelter, Build Back Safer (BBS) shelter construction training, drinking water through voucher approach, latrine repair kits, latrine cash for labor, voucher for food, and multi-purpose cash assistance.

Ms. Divya Chand & Ms. Shweta Sundar jointly presented the topic "Enabling agency in Rural self-constructed housing – the Better Building initiative". They shared that today, over 65% of India's population lives in areas categorized as rural. Over 70% of the houses being built in the country are self-constructed. This translates into the use of materials, labour, building construction technologies, and design ideas that are an outcome of residents' own knowledge and financial resources, resulting in some features atypical of Indian rural housing. Rural housing has been a largely unregulated sector. The unsupervised transition to industrial materials has created a mix of skills and knowledge, as local building professionals have adopted ad-hoc working knowledge without formal training. Along with the rising costs of construction, this has led to poor quality of construction in rural housing.



With the increasing frequency and force of natural hazards such as floods, earthquakes, cyclones, and landslides, it is the rural poor that are often the worst affected. House owners with already scarce resources cannot be expected to repair and retrofit their homes with increased frequency. It is therefore important that they build durable homes. As there are overlaps between sectors, the need is to develop shelter solutions that are adaptable, flexible, incremental, aspirational, and sustainable.

They shared a building better initiative with- definitive design solutions to encourage sustainable and resilient housing; integrated support in construction processes and smarter financial management; enabling awareness and judgement of construction materials and techniques; and bridging skills gaps in the construction industry for higher effectiveness. They also emphasised on leveraging bank-beneficiary relationships which will consequently benefit the bank, environment, customer and construction sector workers.

While presenting the Global Shelter Cluster: Shelter, Cash and Markets Community of Practice, **Ms. LEEANNE MARSHALL** introduced the work of the Shelter, Cash and Markets Community of Practice (CoP). This group exists within the Global Shelter Cluster to enable ongoing sharing and learning related to these key topics. She shared that the CoP works together with the Markets in Crisis (MiC) and recently launched a new Market Based Programming (MBP) and Shelter Guidance note. This introductory guidance was written and compiled as a joint collaboration between the two communities of practice as part of an ongoing effort to improve understanding of market-based programming for shelter and housing markets. It offers practitioners a short overview of MBP and its potential application in humanitarian shelter programming.

The Shelter, Cash and Markets' CoP is also currently supporting the development of some Global Shelter Cluster research looking at the reason behind choosing cash as an approach to support shelter objectives. It asks the question – How and when do humanitarian practitioners make the decision whether or not to implement cash base programming in support of those who lose their shelter and settlements in a humanitarian crisis? The research is taking place between 2022 and early 2023 and aims to increase evidence base programming. Without this evidence practitioners have expressed a lack of confidence in decisions between modalities. It will be a collaborative process between researchers and humanitarian agencies input and experience in using cash for shelter based interventions.

Case Study: Lokal Habitat Labs Leveraging Bank-Beneficiary Relationship

There is a strong existing relationship between the bank and 'their customers' - the self-constructing homeowners.

There is trust based on extensive relationship building and a power dynamic implicit in the lending and repayment process. A typical home-design client for an architect would be the homeowner, the initiative demands us to balance the high-level priorities of the bank and the depth needed in enabling the homeowner's agency on the ground. Capacity building through rural housing banks can be used to improve the design and construction quality of rural houses.

It needs to benefit the bank, customer, environment and masons. Lokal Habitat labs works on creating intervention opportunities and is now working on knowledge sharing based on learnings from the field because shelter is a complex thing that varies based on markets and regions. The focus is on simple efficient home designs, communicating these designs through relatable visuals and adoptable construction techniques that increase resilience.

10.6 Coordination Mechanism and Local Capacity

Coordination Mechanism and Local Capacity on Shelter and Settlements Response

During this session discussions focused on the best practices in coordination mechanisms. Experiences were shared of coordination at different levels for strengthening the capacity of coordination in disaster management initiatives in Asia. **Mr. Wahyu Widayanto** of IFRC Indonesia facilitated the session while **Mr. Lionel Dosdos** of IFRC Philippines, **Mr. Johanes Juliasman**, CRS Indonesia, and **Mr. Sumeru Tripathee** (Freelance consultant) co-facilitated the session.

Mr. Wahyu Widayanto and **Mr. Lionel Dosdos** jointly presented the topic "Coordination mechanism and local capacity." They started their session with a short video on shelter management. The video was about the importance of coordination in ensuring affected families receive assistance in an effective manner.

Followed by the video, **Mr. Wahyu Widayanto** shared that the context and disaster risks of two island countries Indonesia and the Philippines. Within the Philippines typhoons are a common disaster while earthquakes are very common in Indonesia. Describing the disasters that can create a big impact, he shared the coordination mechanism of Indonesia which is under the National Disaster Management Agency and plays its role not only in disaster time but also before and after the disaster. He stipulated which agencies have mandates in protection (UNFPA, UNICEF, WHO, PREDIKT, Humanity and Inclusion, Humanitarian Forum Indonesia) and how many NGOs and Government bodies were engaged in the coordination mechanism to ensure that the shelters are dignified and safe for the affected people. He discussed how academics were also engaged in the process.



Wahyu Widayanto

Mr. Lionel Dosdos shared the historical chronology of different types of disasters that had hit the Philippines. With category five events increasing as an effect of climate change. Then he shared the country's disaster management mechanism and how they localized the mechanism in different ways. In the Philippines 3 ways are used for localizing the mechanism through sub-hubs, grassroots, and local NGOs. He added success is that when localized there is consistency and a strong partnership with government and partner organizations that created better coordination. This also ensures a strong presence on the ground which helps in a faster response. The sub-hub coordination also ensures faster action and improved technical support locally. But the challenges are it requires funding for sub-hub coordination as it is not a priority, hence, volunteer work and sustainability is challenging. He also shared a total of 44 Philippine shelter cluster coordination profiles among those around 20 of them are local NGOs actively working.



Lionel Dosdos

Mr. Sumeru Tripathee discussed the coordination mechanism working in Nepal which is also led by the government of Nepal and has a humanitarian response system. The Prime Minister is the head of humanitarian architecture, and the Executive Committee oversees the operational issues. He added that there is a national disaster management authority, led by a team of experts from 7 provinces. They are called the provincial disaster management committee. He also discussed Nepal's disaster management mechanism and how the Institutional Linkage and Communication Framework was designed.

Mr. Johanes Juliasman talked about localizing shelter cluster partners' engagement through drafting a temporary shelter standard. He shared that both the local and central level stakeholders are working on shelter response. The temporary housing response program still does not meet the standard in various disaster management in Indonesia as shelter option and temporary shelter standard is not familiar to many shelters' actors. Based on the learning from temporary shelter programs in various disasters, CRS and HI through H&C conducted a policy study of temporary shelters in Indonesia. The outcome of the study recommended formalizing policy standards for temporary shelters within programs.

By analysing all the shelter policies in Indonesia, they drafted both the temporary standard regulation, and draft operational framework for Indonesia which can be adopted by the country to detail the minimum service standards that must be provided by the government. The drafting process was based on practice and experience in implementing shelter programs in accordance with the Indonesian context, consisting of various cultures, housing as a place of life, moral values, and principles of life. This regulation created an opportunity for each community to build its shelter in accordance with its principles and beliefs. It also considered the localization agenda by ensuring the use of local materials and potential in the provision of temporary housing.



10.7 Shelter and Settlements Innovation

Innovation and Technical Approaches for Shelter and Settlements

This parallel session was a platform for sharing innovative initiatives and approaches of humanitarian agencies in the shelter and settlement sector. **Md. Abdullah Al Mamun** of CRS Bangladesh facilitated the session. **Ar. Arkadeep Roy** of SEEDS, **Ms. Shegufta Newaz** of IOM, and **Mr. Amit Tandon** (Consultant) jointly presented their experience and innovative ideas in the session.

Ms. Shegufta Newaz presented the topic "Site Planning Approach in Fire Response". She discussed that a total of 404 fire incidents from 2018 till April 2022 (NPM incident report, ISCG) occurred in the camps. During one of the major fires' incidents in March 2021, 10,100 HH were damaged, around 48,300 were directly affected, and 63,590 sqm area was affected. During January 2022 fire incidents, resulted in 373 HH being damaged, and during the March 2022 incidents caused 468 HH being damaged. Due to the density and complex setup in the camps, the fire service needs at least one hour to reach the inside of the camp area and there is limited access for fire trucks.



Therefore, community volunteers were trained and given fire extinguishers to respond to small-scale fires. Humanitarian organizations responded to the crisis in two phases. Debris management, damage, and need assessment of site development work (slope stabilization, access, drainage & installation of solar streetlights), emergency NFI kits and temporary shelter distribution, WASH repairs, and supply of WASH kits were conducted in the first phase. Following the joint assessment for preplanning, community consultation, and site planning, the reconstruction phase was carried out.

The lessons learned from this response are - agreeing on the process and setting the site planning parameters early; prioritizing the planning at different scales; on-site planning and securing space for key infrastructure (access for key essential services, WASH, etc.); and ensuring participation of key stakeholders from the early stage- Shelter, WASH, and Site development. She concluded her session by saying that better preparedness for the fire response system is required in a humanitarian context.



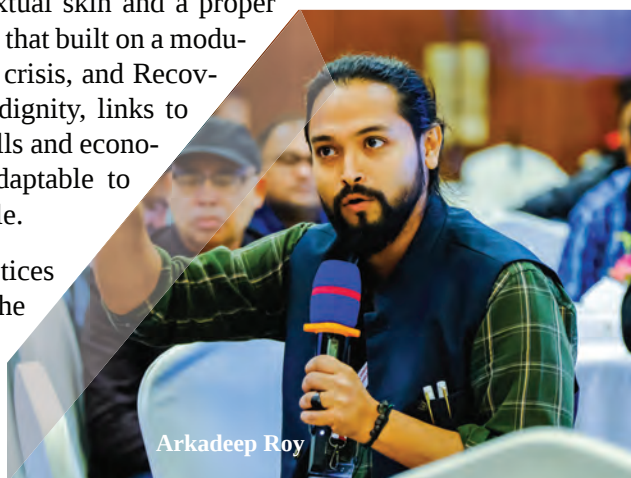
Ms. Shegufta Newaz

Mr. Arkadeep Roy presented the topic "Relief Housing Unit (RHU) Structure an Incremental Approach Towards Post-disaster Settlement Recovery" in the session. He shared that Assam is a state in north-eastern India known for its wildlife, archaeological sites, and tea plantations. Besides its rich cultural diversity, the region is affected by massive climatic disruption. Every year the state is experiencing floods as a common disaster, affecting the communities and its settlement. Like many other districts in Cachar, Silchar is one of the vulnerable locations where flood

is a regular disaster affecting the riverine settlement of this area.

Hence, the main objective was to develop a local design strategy for the RHU Structure and address the challenge of re-enforcing the framework with contextual skin and a proper plinth. They proposed an incremental shelter approach that built on a modular framework that comprised Emergency, Protracted crisis, and Recovery. The major benefits were immediate safety and dignity, links to emergency aid with development, reinforced local skills and economy, scalable and predictable, community driven, adaptable to local culture and context, cost effective and sustainable.

Mr. Amit Tandon discussed Integrating Cultural Practices in Recovery Planning in the session focusing on the attributes of shelter typology, space, neighbourhood planning, and livelihood among missing communities. He shared a case study of a 'Missing Tribe' from the North-eastern part of India and emphasized on indigenous traditional knowledge framework in the discussion. The Missing Tribe he referred to is one of the prominent tribes that reside on the banks of the Subansiri river in Assam India. The shelter and development challenges faced by the tribe were compounded



Arkadeep Roy

by recurrent floods and riverbank erosion. The traditional houses of the missing tribe are called Changhar - a stilt house built with bamboo and sloping roofs. People from the same family live in a closely-knit neighbourhood called Mazor.



Amit Tandon

The socio-spatial relationship between members of the neighbourhood helps in responding during flood situations. They usually prefer staying in their Changhar during the floods instead of moving to relief camps. However, challenges for drinking water and sanitation increase significantly during floods. Culturally, people have shown adaptability to the changing context, it is represented in their housing pattern, livelihood, fishing practices, and agricultural practices. Currently, the tribe is facing the challenge of heavy riverbank erosion which is further aggravated due to climate change.

It is anticipated that most of the settlement will be washed away in the foreseeable future. Given this context, he threw the question to the audience - what kind of anticipatory action can be taken, what traditional housing pattern can be incorporated in recovery planning, and what kind of tangible actions can be undertaken to preserve the location knowledge for this community. Participants had a discussion on these points.

Best Practices: RHU Structure: An incremental approach towards post-disaster settlement

SEEDS (Sustainable Ecological and Environmental Development Society), New Delhi, was founded in 1994, with the goal: of building the resilience of people exposed to disasters and climate change impacts. Working for 29 years, SEEDS has touched 6,015,673 lives, built 62,740 shelters, and responded to 35 emergencies. Every year Assam is experiencing floods as a common disaster, affecting the communities and its settlement. Like many other districts in Cachar, Silchar is one of the vulnerable locations where flood is a regular disaster affecting the riverine settlement of this area. Lakshimpur is one of the most flood-affected regions where settlements get affected by flood yearly which is the main area of SEEDS interventions. Having the objective to develop a local design strategy for the RHU Structure (Relocatable Habitat Unit) and address the challenge of reinforcing the frame and a proper plinth, SEEDS started its work in the area.

They propose an incremental shelter approach that builds on a modular framework, comprising emergency, protracted crisis, and recovery. A robust shelter frame that lets the residents make incremental upgrades with local material and use it throughout the duration of displacement. The major benefits were immediate safety and dignity, linking emergency aid with development, reinforcing local skills and economy, scalable and predictability, community-driven, adaptability to local culture and context, cost-effectiveness, and sustainability.

10.8 Shelter and Recovery Response: Multi Hazards

This technical session focussed on different hazards in Asia and experiences on how they were responded to by various humanitarian agencies in the region. **Mr. Ariel Sadural** of CRS Philippines facilitated the session with **Ms. Hien Thi Nguyen** of CRS, **Dr. Mazhar Mehmood Abbasi** of the Human Development Foundation, and **Mr. Magnus Wolfe Murray** of DFID as co-facilitators.

Mr. Ariel Sadural facilitated the session with the objective - to share best practices, challenges, solutions, and learnings in managing multi-hazard disasters; increasing inter-agency collaboration and strengthening professional relations for better engagement in managing shelter and recovery response; and gathering key takeaways from the participants' feedback to identify ways forward in advancing regional disaster responses. In his presentation, he focused on identifying the gaps in the government's community disaster preparedness and management of housing and in providing assistance to supplement the gaps through the enhancement of guidelines and policies designed to reduce the risks of future disasters. This anticipatory action he argued won't only reduce the impact of future disasters but could also improve social cohesions within the community and government sector responsible for future disaster response.



He shared one of his experiences in responding to the Marawi conflict-affected emergency, in the Philippines. In that response, due to space limitation, the shelter space for each household was only 12 sqm which was not enough for a 5-member family. So, CRS used an additional layer or provided a loft space to increase the covered living space for families, and addressed health concerns as people were getting sick because of sleeping directly on the cold cemented floor. With the loft space, people could sleep on the new loft floor while their personal belongings were stored below.

He mentioned that the Asia and Pacific Region are vulnerable to multi hazards, and the shelter sector lacked guidelines, clear government policy to address the impact of the disaster, inappropriate design to cope with the needs, poor response mechanism and lack of human and financial resources. He stipulated, there are no standard operating guidelines in responding to post-disaster emergency shelter responses in many countries. Each country has its own approach, processes, and procedures. Some countries are better prepared because of their past experiences while other countries are struggling because of a lack of institutional knowledge, and a lack of preparedness to mitigate the impact of the disaster.

While other countries prioritized post-disaster shelter emergency and recovery response, few countries in the Asia Pacific Region are starting to plan and pilot anticipatory actions to reduce the impact of future disasters, especially climatic disasters such as typhoons, storms, floods, and landslides. There are also instances where emergency response is independent and inefficient, requiring strong advocacy for an integrated programming and settlement approach. He concluded his presentation with a recommendation to improve the coordination between cross-country and inter-agency work related to shelter and settlement emergency and recovery response within the Asia and the Pacific Region.

Ms. Hien Thi Nguyen shared her experience on disaster risk management in Vietnam under the topic "Supporting of Government for Community-led Disaster Risk Reduction and Management". Ms. Nguyen started her presentation with a brief sharing of the context where she has been working. 223,008 houses in that area are at risk from storms and 152,820 houses are at risk from floods.

The main disaster of the area is annual typhoons which hit from July to November. She then shared some of the key challenges e.g., not mentioning the resilient shelter in the national plan, not having any standardizing shelter guidelines, which are very important.

She also shared the five steps of the guideline development process – development of the draft guidelines, application of the guidelines, guidelines revision, validation workshop & finalization, and dissemination of the guidelines – involving the National Technical Group, National DMWG, and DRR-P. According to her recommendations (country-specific), support is needed for VNDMA to lead the development of Community-led Housing Preparedness, Recovery and Reconstruction Guidelines with the participation of Ministries, UN agencies, SWG, sectoral experts, CBDRM practitioners, and communities.



Best Practices: Community Based Disaster Risk Management (CBDRM) programs

CRS Vietnam is supporting the Vietnam National Disaster Management Authority (VNDMA) in leading the development of Community-led Housing Preparedness, Recovery, and Reconstruction Guidelines. This initiative involves the participation of various Ministries, UN agencies, the Shelter Working Group, sectoral experts, CBDRM practitioners, and communities. The goal is to standardize shelter guidelines into Community-based Disaster Risk Management (CBDRM) programs, with the National Technical Group representing different ministries and shelter practitioners. This includes assessing existing materials in Vietnam and other countries to determine the most appropriate outline for Vietnam, as well as harmonizing the resources of the government and support from INGOs. After the first draft was developed through national consultation, CRS Vietnam applied the guidelines and piloted them in three provinces.

Following the piloting, feedback was gathered, and validation workshops were conducted to finalize the guidelines. These newly developed guidelines now embed standardizing shelter guidelines into CBDRM programs, which enriches the damage data assessment in line with the Joint Circular No. 43. CRS Vietnam continues to support Sub-Natural Disaster Prevention and Control Committees, especially at the community level, to help CSOs and communities apply the Guidelines. This includes identifying and prioritizing immediate and long-term safe shelter measures, as well as integrating shelter concerns into the disaster risk reduction plan development process.

Mr. Magnus Wolfe Murray talked about Shelter in a protracted crisis context, FDMN camps in Cox's Bazar, Bangladesh. He started his presentation by sharing the importance of using treated bamboo in shelter construction. Considering the durability, and cost-effectiveness, he recommended increased use of treated bamboo in shelter construction, research on bamboo treatment quality and cost/benefit, and disseminating this technique to others. He also shared about three alternative materials in shelter construction - double storey steel-framed shelters, earth shelters, and jutin (Jute compressed with resin) sheet shelters – which might be explored in other contexts.

Mr. Mazhar Mehmood Abbasi shared his experience of shelter and recovery response in Pakistan (a country in which 80 districts have been declared climate vulnerable by both the government and UN OCHA) and discussed the need for timely and sustainable shelters in emergencies. He mentioned that shelter is the first priority/need of human beings for survival and during emergencies, shelter is the most vulnerable area i.e., residents are forced to leave either due to security concerns (man-made disasters) or physical damage to their homes (natural disasters). Hence, appropriate shelter is key to the overall well-being of the individuals i.e., security, peace, and health. In addition, the provision of shelter structures to IDPs and refugees is a specialized job requiring appropriate planning and management.

It has been observed, especially, after natural disasters that state actors and partner humanitarian organizations take quite a long time in providing shelter support to affected people. Affected community often have to wait for a long time to access temporary shelters and are forced to live in open conditions exposed to extreme weather and other risks e.g., compromised protection, mental health, etc. Such delays in shelter access can span months causing immense damage to the well-being of impacted individuals. By the time shelters are provided, affected community members having suffered substantial setbacks and been forced to take risks



that compromise their well-being and dignity. He suggested some points as the way forward to foster the disaster response in a timely manner. There must be set standards (SoPs) for each type of disaster clearly defining the timespan from onset to provision of shelter. To minimize risks of additional hardship, shelter delivery to IDPs must be accompanied by awareness interventions e.g., MHPSS, Hygiene promotion, etc. Given the complexity of vulnerability, shelters must be packaged with LLINs, rapid install pit latrines, and handwashing areas. Shelter, WASH, and Health sectors/clusters must plan and deliver services as an integrated package. An integrated response plan must be part of the DRR strategy of both the government and humanitarian partners.

Best Practices or Case Study: Effective use of Bamboo for Shelters in protracted crisis FDMN camps, Cox's Bazar, Bangladesh

The Foreign, Commonwealth and Development Office (FCDO) recently introduced a bamboo treatment on a mass scale to Forcibly Displaced Myanmar Nationals (FDMN) Camps in Cox's Bazar Bangladesh. This treatment is designed to enhance the durability and sustainability of the shelters used in FDMN camps and is achieved through the use of Borax and Boric acid, resulting in cost-beneficial results.

To further increase the life span of the bamboos, metal or reinforced concrete footing is used for the bamboo posts, providing the structure with the necessary support to resist wind pressure. This footing also isolates the bamboo posts from the ground, protecting them from water and infestation. Additionally, the footing can be easily uninstalled and reinstalled, if needed.

Open holes in bamboo can allow moisture to enter, increasing the risk of deterioration and infestation. To prevent this, the bamboos are connected through rope using metal, which helps to tighten the joints and block any holes, thus preventing moisture from entering and damaging the bamboos.

10.9 Green, Resilient, and Inclusive Development

Green and inclusive responses in Shelter & Settlement

This session created the opportunity to discuss the best practices, lessons learned, and challenges in green shelter programs in the Asian context. The session was jointly facilitated by **Mr. Ratan Podder** of Caritas Bangladesh & **Mr. Mehul Savla** of CRS Nepal and co-facilitated by **Ms. Faria Binte Arif** of Shahjalal University of Science and Technology, **Mr. Mohammad Abu Sadeque** of Centre for Housing & Building Research (HBRC), and **Mr. Dabal Kaji Rokaha** & **Mr. Clint Kimmel** of IOM.

Ms. Faria Binte Arif shared one of her research studies titled "Social Capital as a Shelter: Experiences from Women's Involvement in Co-management of Tanguar Haor, Sunamganj." She started her presentation with an introduction to her study area - Tanguar Haor in Sunamganj district under the Sylhet division. Tanguar haor, the biggest wetlands of Bangladesh, is a critically endangered natural resource of Bangladesh that has been declared an Ecologically Critical Area of the country.

She shared that it is well-known to all that women have established themselves as an agent of change in the sector of sustainable environmental development. In that context, the economic development of Bangladesh is currently moving at a moderate pace in the Haor region, and they are lagging in relation to national development. Women are the most vulnerable population in the Haor region and mostly dependent on the natural resources of the Haor. Focusses on the Tanguar Haor will find that it is a critically endangered, hard-to-reach, and disaster-prone area, with its own cultural setting. The women living in the Tanguar Haor area lack the networking skills with the homogenous group. There is gender-specific challenges like interference from the local elites, and limited mobilization of women in the public sphere when compared to their male counterparts. These are the key determinants of impact on participation in co-management activities. After analysing



the plans and policies, the presenter identified that there is a hierarchy system at the Union and Upazila levels, and there are limited activities and no participation of women in government-level committees. The local elites dominate the opportunities on the GoB projects and there is fewer gender-inclusive plans, and women are engaged in HH work as women working outside is a culturally less supported.

Key thinking is that the Gender Needs Assessment is necessary for resource management. According to the study findings, the social norm is that women should be concentrated in domestic spheres (work at home). The women engaged in community activities only attend a few meetings, without any right to raise issues or speak; the Chairmen ensures women's physical participation, but they are not allowed to talk or share their point of view. The women staying home are isolated; possess lack of mobility & credit, confined in space with limited motivation to engage. The dominant culture and social approach need to be restructured for women's participation at all levels to change.

Within the study findings, there are two needs for women's participation. One is a practical need and the other is a strategic need. Women need to be stronger and actively participate in community-based activities. Women's lack of self-esteem and confidence needs to be increased for women's participation and contribution to change. As the Haor area is a disaster-prone area, the women face and tackle many disasters, and they are strong. However, they are dependent on the decisions taken by men and are not allowed to go outside of the home environment. During disasters, the women do not leave the house until the men of the family come and take them to a safe place. Also, the cultural and social barrier prevents them from climbing trees or learning to swim as key strategies to save themselves from disaster.

There is also a social capital need to identify the scope for co-activities, with women's participation, and save their natural resources jointly. The presenter recommended ensuring strong linkages be created between the CBO and local government to provide support in any circumstance. She also highlighted the need to extend the co-management bodies at the Upazila level. There is also a need to develop guidelines for the formation of CBOs and maintaining the percentage of women members in the committee. CBOs can make a social network to encourage women to become entrepreneurs.

While analysing the spatial stories of the women, it was noticed that women of this area interpreted their life based on the patriarchal society. This study found that women have social networking but not in a collective way. For that reason, collectively they cannot play a significant role in the co-management decisions of the Tanguar Haor. If the women's involvement can be re-addressed, then their networking will be increased, and it will directly make an impact on the management of natural resources like Tanguar Haor.

Er. Mohammad Abu Sadeque presented the topic of "Affordable Shelter". The way he defined affordable housing is, if housing is affordable to median people, then it can be called affordable housing. Some believe when monthly housing costs 30-35% of total monthly income, or if 10-year savings can buy a shelter, then we call it affordable. Sustainability means addressing the need without compromising the needs of the future generation.

While constructing any new establishment, especially a house, we should consider or think of the life cycle of the house e.g., the life of that tin-shed house might be 10 years, and the life of the permanent house might be 50 years. In addition, he also discussed the need to consider the social cost which he thinks will be justified for our environment. He mentioned, according to the Bangladesh government, the definition of a permanent or durable house is that which has a life span of at least 30 years. Hence, he added, if we do not provide permanent housing; it is almost impossible to achieve the goal - housing for all.

Explaining the limitations of the conventional building materials he discussed that indoor room temperature can rise by over 10 degrees from the ambient air temperature if the house building material is CI sheets for both the roof and walls. The temperature is 5 degrees higher when the roof is a CI sheet, and the wall is not. It is very uncomfortable for residents and often has hygiene concerns at unacceptable levels. The HBRC Strategy considers both embodied and operational energy, agriculture and environmental friendliness, disaster resilience and sustainable shelter, and affordability to low-income people.

Best Practices or Case Study: Affordable Shelter

The Centre for Housing & Building Research (HBRC)- a research and development hub in the private sector is to complement both public and private initiative and entrepreneurship working with a vision to ensure housing for all. This organization is piloting projects to provide affordable shelter in Bangladesh, in line with the directives of the Honorable Prime Minister of Bangladesh to use 'Ferro-cement' for rural housing and building technology, eliminating the use of clay-burned bricks while using concrete blocks and compressed stabilized earth blocks or other alternatives. This project was awarded the Energy Globe by Austria.

The projects applied the theory sustainable shelter solution by using ferro-cement and compressed stabilized earth blocks and concrete hollow block, which greatly reduced the need for wood, CGI sheet and clay-burned bricks will help to reduce environmental degradation in Bangladesh. HBRC considers sustainability means the need without compromising the needs of future generation. Sustainability not only means durability but also it means environment friendliness, hygienic facilities and affordability. The buildings are designed with 150 square feet of space, meeting international humanitarian housing standards and providing enough space for four members of a family.

These projects are highly energy efficient and cost-effective, making them an ideal solution. HBRC has recommended the use of this project as a grant to homeless people as a grant and providing support with a revolving fund or a loan with a very low-interest rate for median income household. Estimated cost per shelter is BDT 135,000 which is low considering social and life cycle cost and it can be very affordable in terms of cost effectiveness.

Mr. Dabal Kaji Rokaha talked about “Environmental Sustainability in Shelter and Settlement Response” in the FDMN camps. He mentioned that in the camps of Cox’s Bazar, all shelters are exposed to cyclical monsoons and the risk of floods, landslides, fire, and cyclones. The durability of existing shelters is a major concern among the Rohingya population. Efforts need to be made to address the environmental impact of the assistance given to date in terms of the shelter materials provided to the Rohingya population. To date, the Shelter unit’s response to the Rohingya humanitarian crisis has been divided into five phases starting with distributing the Emergency Shelter Kits (ESK) during September 2017 to December 2017 followed by the distribution of Upgrade Shelter Kit (USK) in 2018.

The Shelter/NFI sector then introduced the transitional shelter assistance (TSA) programme to upgrade existing shelters – providing material and follow-up support based on beneficiaries’ needs in 2019. In a later period, TSA 2 programme was designed to improve the structural stability, durability and habitability of existing shelters. The TSA Programme facilitated the transitional upgrade of existing shelters through capacity development, material support, and direct technical assistance to beneficiaries. To ensure the sustainability and effectiveness of program results, IOM followed a cross-cutting implementation strategy - Ownership/beneficiary-Driven Approach, Learning by Doing Approach, Capacity Development Approach, Community Engagement Approach, and Gender / Social Inclusion Approach. In addition, IOM trainers develop the technical capacity among community members by training Rohingya carpenters who are deployed to provide construction support to EVIs and non-EVI families. All TSA beneficiaries take part in a “TSA” training delivered by field trainers before distribution. Training content focuses on Disaster Risk Reduction (DRR) techniques captured in the 8 Key messages: site improvements and damage, solid foundation, reinforced structure, strong connections, secure roofing and tarpaulin, ventilation moisture-resistant flooring, and safe cooking.



Phase 5 is called Shelter Upgrade and Maintenance Program (SUM). The earlier phases of ESK, USK, TSA I, and TSA II were implemented through blanket coverage, meaning the same assistance package was provided to all HHs within a camp. Considering the prolonged nature of the crisis, and the reduction in funding, the SUM will base its material points system on the condition of each shelter, and the HH size and SUM program is designed as an annual shelter assistance package for the next 3 years (2022-2025). SUM focuses on improving the condition of existing shelters through the replacement of damaged material, re-use of old material where possible, and inclusion of new types of material. There is a strong emphasis on households choosing materials and taking responsibility for the construction and maintenance of their own shelters. SUM allows beneficiaries to improve their existing shelters without requiring a site plan. The SUM program helps beneficiaries to improve privacy, security, and ventilation measures. In addition to ESK, USK, TSA, and SUM program, IOM also constructed Mid-Term Shelters (MTS) in Camp 20 and 20 Ext for the most vulnerable households, newly arrived families, and relocated from other camps so that families are accommodated in the durable shelter.

Best Practices or Case Study: Environmental sustainability in shelter and settlement in the Rohingya Response

In Bangladesh, IOM has been working to promote environmental sustainability in shelter and settlement programs for the Rohingya response in Cox's Bazar besides its other functions. The primary goal of this initiative is to ensure that Forcibly Displaced Myanmar Nationals receive durable and sustainable shelter assistance, taking into account the environmental risks. To this end, IOM has been supporting with shelter assistance including upgrading of shelters since 2017.

IOM has also been providing training and technical guidance to the beneficiaries with key DRR messages, teaching them how to reuse existing materials and avoid disposing of them in open areas in order to prevent environmental hazards. This has enabled them to repair, reinstall and improve their shelters independently. Additionally, they have been taught how to use bamboo with metal and reinforced concrete footing to increase the longevity of the bamboos, as well as how to properly use rope and metal knots for durable shelter construction, renovation and fencing to prevent and sustain themselves from environmental threats. The footing isolates the bamboo posts from the ground helping to prevent moisture contact preventing fungal rot. Use of metal and reinforced concrete footings for bamboo posts and bracing- increases the longevity of bamboo and reducing impact on the Bangladeshi bamboo reserves.

On the other hand during the initial response to the influx of Refugees from Myanmar in the refugee camps, about 20 million bamboo poles were poured into the refugee camps. Within 6 months, it was realized that all of the bamboo started to fall apart, due to boring beetles, termites, etc. This emergency shelter response was devastating the resource of bamboo and forests in Bangladesh, including the personal burrows. And bamboo is used in so many construction processes, these affected other industries as well. To restore such situation IOM established Bamboo Treatment Facilities (BTF).

The BTF were designed to be circular, treating bamboo with Borak, and recycled that coming out with a filtration method, filtered out the sugar, and continued to reuse the solution. They did some tests and found out that the initial solution from the first treatment was still in those tanks. Thus, it helped in recycling and helping the environment. All of the excess scraps were used to produce charcoal, which is then used for the filtration process. And then in the camps, supported some small livelihood projects in different venues. Until November 2022, 10 million bamboos have been treated that will have 4-5 years of lifespan. These materials will be protected for at least 10 years in the environment. Other humanitarian and private organizations also replicated establishing BTF.

Mr. Clint Kimmel talked about the importance of using treated bamboo in shelter response based on his experience in Cox's Bazar. He mentioned that during the initial response to the influx of Refugees from Myanmar in the refugee camps, about 20 million bamboo poles were utilised in the refugee camps. Within 6 months, it was apparent that the condition of the bamboo was starting to deteriorate due to boring beetles, termites, etc. After looking at many possibilities and in discussion with the government, it was decided that there could not be any kind of permanent solution or construction within Cox Bazar. In discussion with the sector experts and consultants, with the sector opted to move forward with treated bamboo, as a sustainable longer-term solution. IOM started bamboo treatment in a 1900 square meters facility in 2018. The capacity of the facility is 2500 poles a day, 60,000 poles a month. When the facility is in full operation, it can treat 4,040 bamboo a day.

The decision of using treated bamboo has reduced demand for bamboo in the camps as it was also affecting other industries of the country.

Bamboo treatment process: There are 12 main steps in the treatment process – Bamboo aged 3-5 years is received by the vendor and undergoes a quality control check, it is cut to a length of 20 feet (6.1 meters), cleaned of nodes (it helps open the vascular tissues so that the solution goes through), the bamboo is drilled at the top, washed to remove dirt and soaked for 8 days in the solution. After 8 days of soaking the ballasts are removed and the fluid is drained back into the ponds. The poles are then vertically dried for 1 or 2 days, horizontal rafts are created and finally the bamboos are ready to go to the field.

Across the whole program, IOM has tried to follow an approach that looks to conserve forest land, and paddy fields. The production facilities were designed to be circular, treating bamboo with Borak, and recycling the wastewater with a filtration method that includes the continued reuse of the treatment solution. Tests on the initial solution from the first treatment cycle have shown the concentration of the treatment fluid has been retained in the tanks through the cyclical approach used. Excess scraps generated in the production were used to produce charcoal, which is then used for the filtration process. To date 28 million poles have been sent to the camps for shelter and construction purposes. Of those 10 million bamboos have been treated and will have a 4-5 year lifespan.



11. Closing Ceremony



The closing session of the Asia Shelter Forum 2022 has been facilitated by **Ms. Alexia Riviere**, Emergency Coordinator and Acting Head of Program of CRS Bangladesh. She used the Mentimeter survey to collect feedback from the participants. The questions of the survey focused on soliciting feedback the arrangement of this year's ASF and recommendations for the next meeting. Detailed feedback from the participants is included in the annex section of the report.

Honorable Secretary for the Ministry of Disaster Management and Relief Md. Kamrul Hasan (NDC) was the chief guest of the closing ceremony while the Director General of the Disaster Management Department Md. Atiqul Huq, the convener of NOC, the Project Director of the Urban Resilience Project of DDM Dr. A.T.M. Mahbub-ul Karim, Member Secretary of NOC, and the Executive Director of Caritas Bangladesh Mr. Sebastian Rozario, Member of NOC, represented the National Organizing Committee (NOC) of Asia Shelter Forum in the closing ceremony.

11.1 Appreciation and token of love distribution

This year ASF-22 included participation of government representatives from Bangladesh, India, Nepal, Philippines, and Vietnam. As a token of love for continuously extending hands together with the humanitarian community and for collaborating in the annual event, the Secretary of the Ministry of Disaster Management and Relief (MoDMR) of the people's republic of Bangladesh Mr. Kamrul Hasan NDC handed over the appreciation token to each country's representatives on behalf of the Government of Bangladesh. For leadership and support from the government, on behalf of the organizers the Executive Director of Caritas Bangladesh Mr. Sebastian Rozario has been handed the honorary crests to the Secretary of the MoDMR Mr. Kamrul Hasan NDC, and the Director General of the Department of Disaster Management (DDM) Md. Atiqul Huq.



11.2 Closing Remarks by Md Kamrul Hasan NDC, honourable Secretary of Ministry of Disaster Management and Relief

Following a greeting to all the participants, Mr. Secretary stated he believed the objective of organizing this regional forum for resilient shelter and settlement will be a shift in the perspective of the government of Bangladesh. He hoped that the forum will take place on a regular basis with the purpose of coordination and collaboration.

In addition, he believed that the learning and sharing of experiences in shelters and in the different sectors will bring fruitful results. He also thinks that this regional forum is crucial to inform and provide updates on various ongoing initiatives on shelter interventions particularly during the response phase of to a crisis based on success and lessons learned during implementation in the field.

He mentioned that in Bangladesh, disaster shelters are inclusive, gender-friendly, and accessible to persons with disability and he hopes the lessons, experience, and best practices shared and discussed in this forum will play a key role in addressing future disasters. He appreciated the participation and contribution of the participants and facilitators from Asia Pacific regions to achieve resilient shelter and settlements. He concluded the annual forum for 2022 by thanking the organizing team for the timely and meaningful conference and encouraged practitioners from the region to continue to innovative in this important sector.



12. Market Stalls

To showcase and give a practical view of the good works that the government and non-government stakeholders carrying out across the country, a market stall initiative also was taken by the organizers. A total of 11 organizations (Bangladesh Tourism Board, Department of Disaster Management (DDM), Ministry of Home Affairs & Ministry of Urban Development, National Disaster Risk Reduction and Management Authority, National Housing and Settlement Resilience Platform (NHSRP), Interaction, Habitat for Humanity (HFH), Anwar Cement Sheet LTD., Iconic, Global Unnayan Seba Sangstha (GUSS), Catholic Relief Services (CRS), Caritas Bangladesh (CB), CORR The Jute Works) have participated in the initiative and with various means e.g. demo infrastructures, documents, and desital display, they showed their works and innovatives works to the participants of the event. During the coffee and lunch break, participants of the event have visited the stalls and interacted with the people in the stall to get deeper understanding based on their interest.



13. Field Visit

The third day (November 30) of the ASF annual conference was a day designed for experiencing local shelter-based innovations. Ninety participants undertook a field visit to Nagarkanda Sub-district in Faridpur District to see the Ashrayan Project. This is a specialized project tasked with building homes for homeless and displaced people, funded by the government of Bangladesh under the Prime Minister's Office.

This Ashrayan project was built at Poradia Balia on the banks of the river Kumar at Kaichail union and comprises 110 houses. The government has a target to provide houses to 4,994 landless and homeless families in three phases under the Ashrayan-2 Project. In the first phase of the project 2035 families were given houses Phase two had 1,572 families given homes. The project is now in phase three. In April 2022, 696 houses out of 1387 were handed over to homeless and landless families.

Under the project, ownership of land and house is being given in the joint names of husband and wife. Each unit has two rooms, a kitchen, a toilet and a veranda at a cost of TK 259,500 without tax and VAT (TK 330,000 with tax and VAT). Free electricity connection is provided to the families and tube wells are being sunk for safe water at the project site. The housing schemes are having community centres, prayer houses and graveyards, ponds and roads for internal movement. Under the Ashrayan project, a total of 507,244 families have been relocated between 1997 and March 2022 when the project was initiated.

The local government authority hosted the delegates and showed the project areas to them. The delegates also met the community members and visited their households to learn more about the project. The field visit has been concluded by visiting the Bangladesh Livestock Research Institute at Faridpur.



14. Outcome of Asia Shelter Forum 2022

The Asia Shelter Forum, organized in Bangladesh, proved to be a highly beneficial event for the participants, in terms of disaster response and preparedness. With the active involvement of 315 participants, including government and non-government shelter and settlement practitioners, the forum provided a valuable platform for knowledge exchange and learning. The participants had the opportunity to share experiences, innovations, and best practices in shelter and settlement strategies. The specific outcomes of the forum are furnished below:

- Strengthened coordination and collaboration between the Government of Bangladesh and international and National non-governmental organizations (I/NGOs), including UN agencies.
- Facilitated the convergence of shelter and settlement practitioners, government officials from Asia and the Pacific countries, donors, media, academia, and the private sector, fostering a comprehensive understanding of diverse issues related to shelter and settlement and increasing their attention.
- Provided participants with valuable opportunities for cross-learning, enabling them to exchange best practices in coordination mechanisms, innovation, response strategies, Geographic Information Systems (GIS), local capacity building, cash-based interventions, market approaches, and alternative materials.
- Established a platform for robust networking among shelter and settlement practitioners at the local, national, regional, and global levels.
- Pioneered an initiative to promote the establishment of country-level National Shelter Platforms, facilitating effective coordination among various shelter practitioners.
- Facilitated knowledge-sharing sessions where organizations and individuals shared their experiences, innovations, and best practices in shelter and settlement strategies, equipping participants with enhanced capacity to develop sustainable solutions aligned with the Sustainable Development Goals (SDGs).
- Highlighted the significance of "Public-Private Partnership" in fostering effective responses, particularly through market-based approaches.
- Participants unanimously expressed the importance of organizing this event in the coming years, emphasizing the hosting at the country level, which will strengthen coordination and collaboration among government entities, academia, the private sector, and humanitarian organizations. The ultimate goal is to alleviate the suffering of vulnerable populations.



15. Summary of the event and Reflection Analysis

15.1 Summary of the event

ASF was a platform to interact and engage with the stakeholders working with the shelter and settlement programs in the Asia and the Pacific region. Learning and knowledge have been shared by the facilitators and participants respectively throughout the event. The knowledge gained from the conference will play a significant role in developing suitable initiatives for addressing future disaster events. However, a joint effort is needed at the country level to best support the people affected by the crisis from housing to livelihood extension.

A huge diversity of participants, from regional to national government delegates along with experts and professionals working in shelter response, disaster risk management, and cross-cutting sectors has attended the ASF International Conference in person, using the virtual platforms or in a hybrid approach. Local government bodies and frontline workers presented their innovations, accomplishments, and new ideas for sustainable housing solutions and reconstruction. Such success stories highlighted the proactive roles of local bodies in recovery efforts.

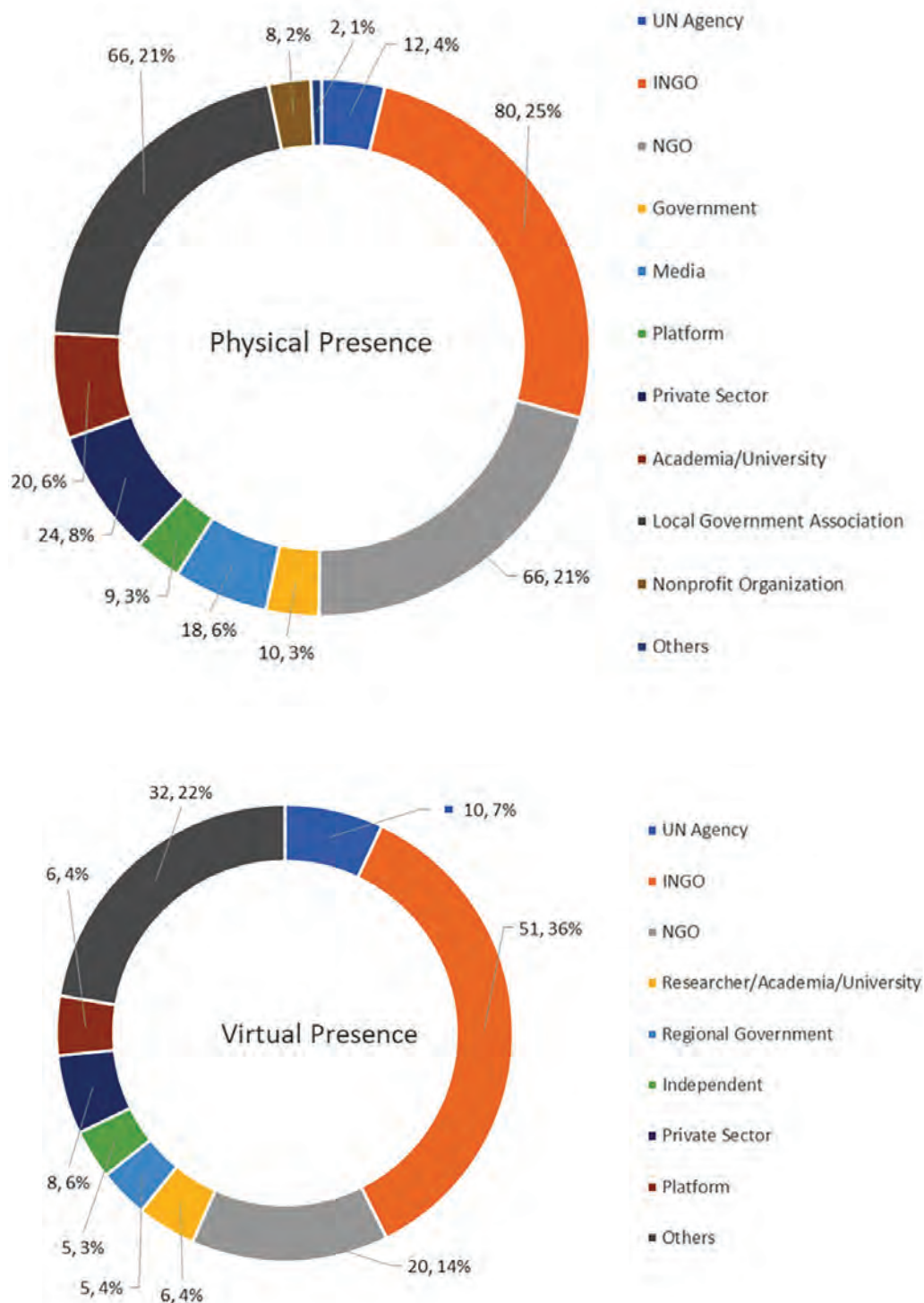
The interactions at the conference have addressed how nature-based solutions are critical for the sustainability of the recovery process. Speakers stressed the importance of mass sensitization and citizens' acceptance of the recovery programs that revolve around following policies and technologies that ensure strong and resilient homes and communities. Participants emphasized the need for active mechanisms across all levels including national and provincial structures. They discussed the role of local systems and individual organizations in ensuring disaster preparedness initiatives are systematic. All agreed on the importance of organizing this event in the coming years and hosting it at the country level.

15.2 Reflection Anal

- Interactive forums are needed to cascade from national to regional and local levels and to facilitate lively dialogue as often as possible to promote and share innovative ideas to respond to the shelter needs of the vulnerable and disaster-affected people.
- Regional mechanisms such as Asia Shelter Forum and other technical working groups under various thematic issues have improved meaningful coordination among all shelter actors and promoted better shelter practices.
- Coordination has been underscored as important and as the key element in all phases of disaster response.
- Cross learning and sharing from one another about reliable shelter response and recovery practices across countries in the Asia region is the main highlight of this kind of platform.
- Parallel thematic sessions have resulted in cross-learning with an increased understanding of thematic issues for continuous collaboration and partnership among all the regional stakeholders.
- The meaningful participation of various actors in the ASF including government partners, donor and development partners has helped increase the learning and interest for developing joint initiatives to respond around shelter and settlement issues for vulnerable populations. The approach to include livelihoods and environment highlights the needs to include a multisectoral approach to address the needs of vulnerable populations.

15.3 Participants/Attendees Activity Analysis

Of the total 538 participants, 315 (19.77% female; 80.23% male) participated in person, while 143 (26.57% female; 73.43% male) joined via a virtual medium.





16. ANNEXES

A. Feedback as received in Mentimeter

1. Are there any broad thematic areas you'd like to see included in the next ASF?

Localization and local leadership

Urban settlement and shelter response

Resource mobilization and donor relations for shelter

GRID

Shelter innovation

Cross sectorial integration, challenges, and critique sessions

Housing Land and Property

Climate adaptation and shelter solution

Inclusion

Private sector engagement in shelters

Cash and Market

Shelter and recovery response

Community voice representer

Site planning and settlements

2. Are there any specific topics you'd like to see included in the next ASF?

Disaster resilient housing solutions

Housing financial mechanism

Alternative materials for low-cost housing

Emergency to recovery solutions

Urban informal settlement issues

Inclusion: Protection and gender mainstreaming

Private sector engagement

Shelter innovation

Housing/Shelter for urban poor

Settlements planning in emergencies

Community based durable shelter solutions

Shelter market development

Nature based solutions

Green settlement and green response

Indigenous knowledge based shelter

HLP

3. Which breakout group session have you liked the best?

GRID

**Localization: Coordination
mechanism and local capacity on
shelter and settlements**

Localization: Local leadership

Shelter and Settlement innovation

Cash and Market

Shelter response

Asia Shelter Forum Future

4. Which breakout group session did you find the most engaging?

GRID

**Localization: Coordination
mechanism and local capacity on
shelter and settlements**

Localization: Local leadership

Cash and Market

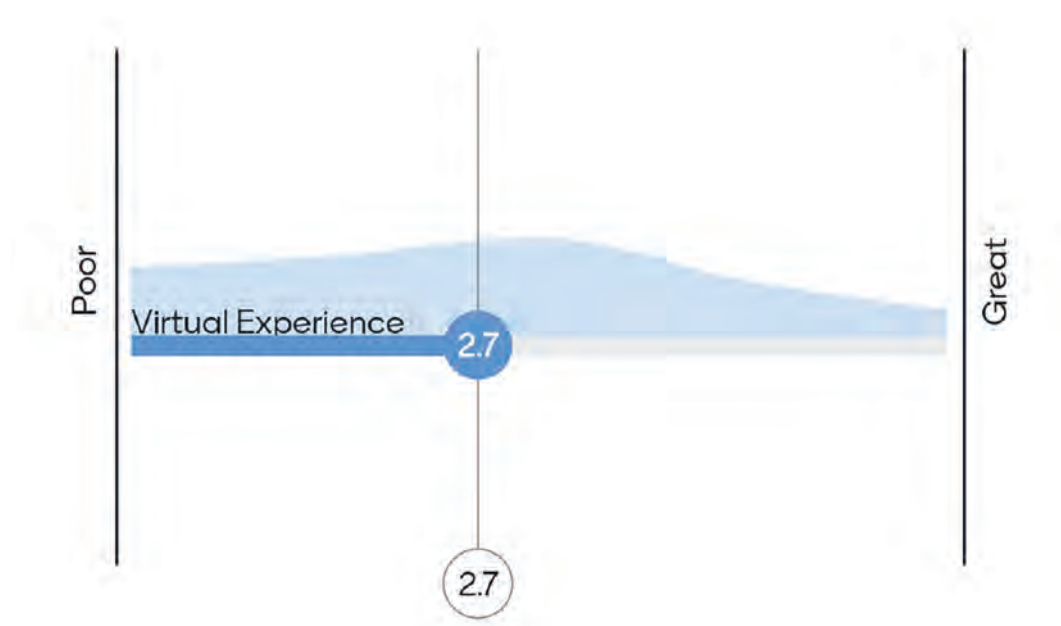
Shelter and settlement innovations

Future of Asia Shelter Forum

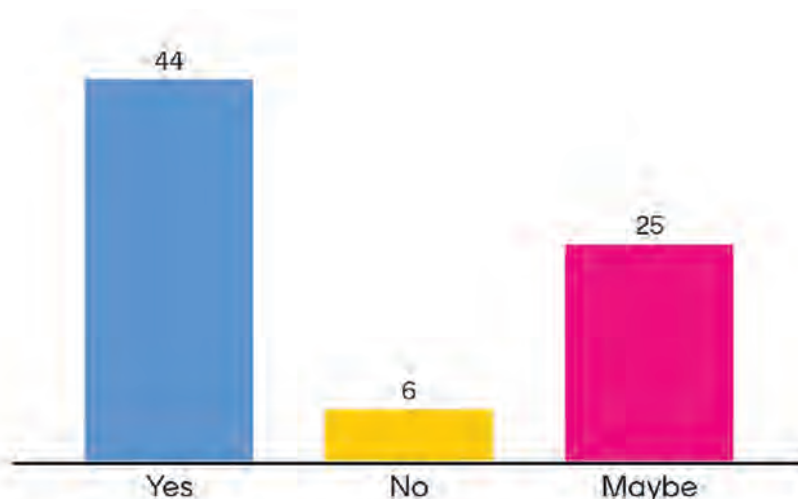
5. Which plenary presentation have you liked the most?

Regional government panel discussion	Mohamed Hilmi's presentation/Keynote
Flash flood response 2022 in Bangladesh	Disability Inclusion
From Risk to Resilience	Sphere standards and shelter projects

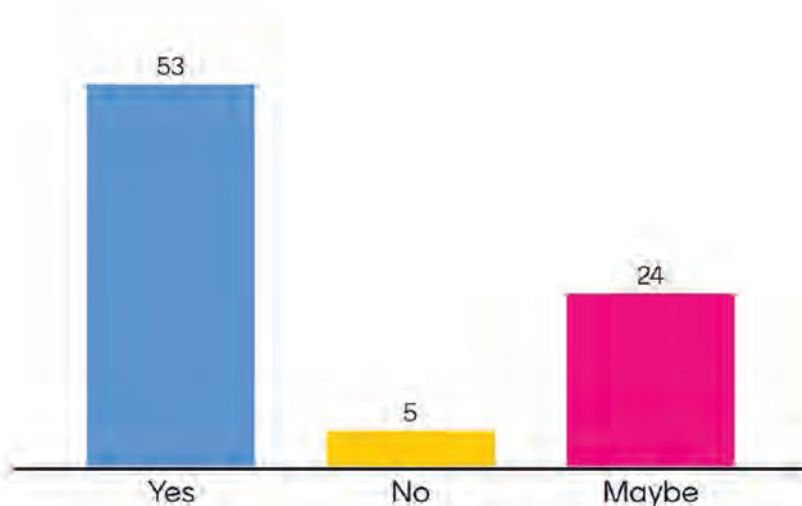
6. If you have participated virtually, how would you rate your experience?



- 7. Did ASF 2022 enhance the engagement and ownership of key stakeholders i.e., Government, LNGO, INGO, Private Sector etc. to address shelter/housing?**



- 8. Did ASF 2022 meet its spirit to naturally improve coordination, collaboration, share learnings and best practices?**



9. Do you have a message to the organizers of the ASF 2022?

Thanks for all of your hard work to make this happen!

Great Job!!

Time Management

Need to improve the IT support

10. What is your one major takeaway from the ASF 2022?

Networking

Shelter is a process

Innovative shelter management

Collaboration and partnership

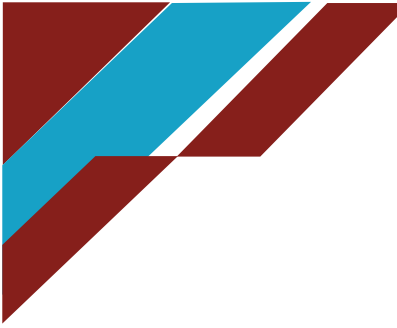
Local is Global

Exchange of ideas and cross learning

Coordination mechanism

Local leadership

Best practices from different countries



B. Schedule



Asia Shelter Forum 2022 - Day 1

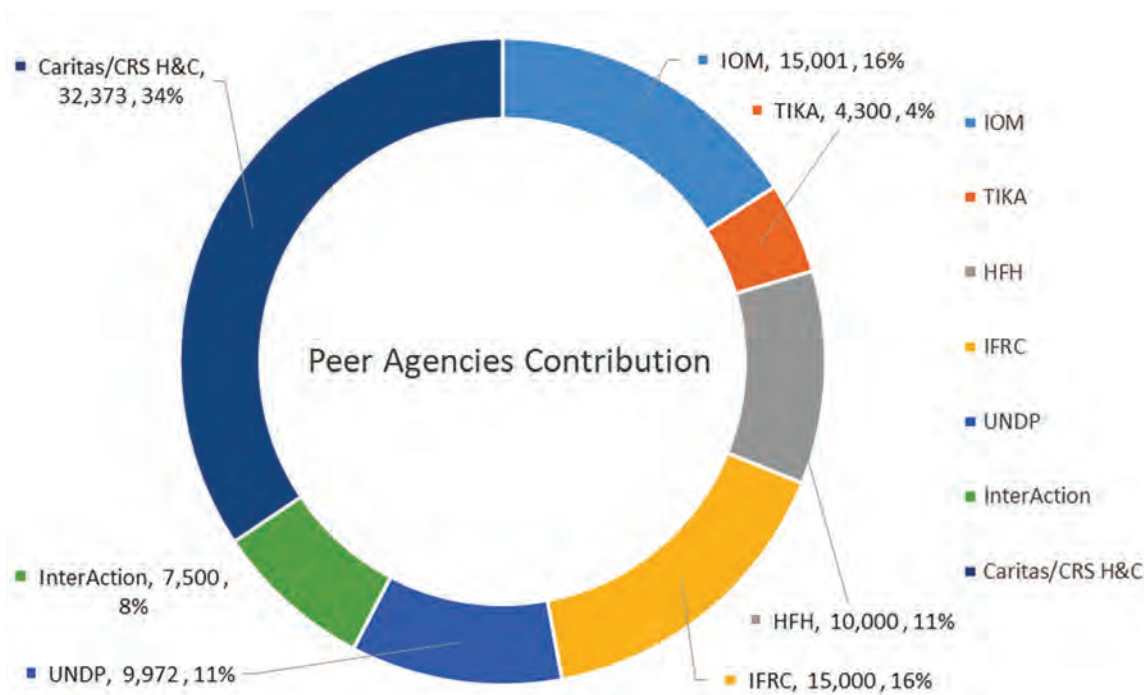
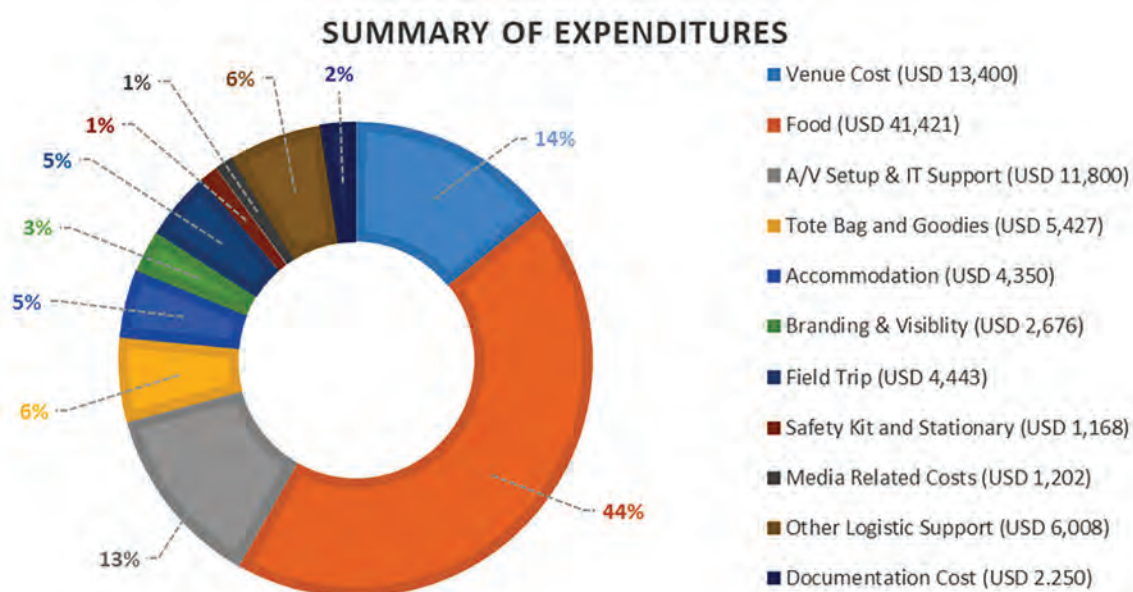
28th November 2022

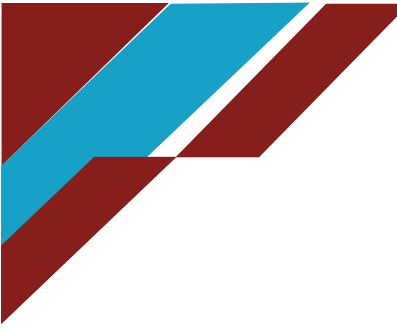
Time	Session Ref	Duration	Session Type	Thematic Area	Session Details		Facilitator/Speaker
08:00 - 09:00		60 min			Breakfast & Registration		Organizing Team
09:00 - 09:05	D1-1 Grand Ball Room	5 min	Inaugural Session		Opening - Introduction		Ranjon John Paul Rozario/CB, Alexia Riviere/CRS
09:05 - 09:15		10 min		Welcome speech		Sebastian Rozario, ED, Caritas Bangladesh	
09:15 - 09:25		10 min		Journey to Asia Shelter Forum (2022 in Bangladesh) Video and Speech		Alexander Tripura and Khondoker Salehin	
09:25 - 09:40		15 min		Habitat for Homeless and Shelter During Disaster: Bangladesh Perspective		Syed Ashraf	
09:40 - 09:50		10 min		Speech by Special Guest		Most Rev. James Romen Bairagi	
09:50 - 10:00		10 min		Speech by Guest of Honor		Md Kamrul Hasan ndc, Secretary, MoDMR	
10:00 - 10:10		10 min		Speech Chief Guest		Honorable State Minister Dr. Md. Enamur Rahman, MP, MoDMR	
10:10 - 10:20		10 min				Speech by Chair	Md. Atiquel Huq, Director General, DDM, MoDMR
10:20 - 11:05		45 min		Market Place + meeting participants over Tea			
11:05 - 11:20	D1-2 Grand Ball Room	15 min	Plenary	Security Briefing		Mr. Arifur Rahman, IFRC Bangladesh Delegation	
11:20 - 12:50		90 min		Panel Discussion with Regional Govts		Marc D'Silva	
12:50 - 13:00		10 min		ASF Future and Organization		Minar Thapa Magar & Sanjeev Hada	
13:00 - 14:00		60 min		Discussion with Participants Over Lunch			
14:00 - 14:15	D1-3 Grand Ball Room	15 min	Plenary	Keynote Speaker - Mr. Kazi Shahidur Rahman, UNRCO		Jamie Richardson	
14:15 - 14:30		15 min		Keynote Speaker - Sanjeev Kafley, IFRC			
14:30 - 14:45		15 min		Keynote Speaker - Mohamed Hilmi, InterAction			
14:45 - 15:00		15 min		Keynote Speaker - Charles A. Setchell, USAID/BHA			
15:00 - 15:15		15 min		Breakout Sessions announcement			
15:15 - 15:45		30 min		Discussion with participants over Tea			
15:45 - 17:15	D1-4	90 min	Technical Sessions (Group Breakout)		Breakout Sessions	Room Name	
				Coordination Mechanism and Local capacity	Localization: Local Leadership in Humanitarian Response	BALL ROOM - 01	Facilitator(s): Mohamed Hilmi Co-facilitator(s)/Presenter(s): Meshba Uddin Ahmed Bai Maroudz Sinsuat Ibrahim
				Shelter and Settlements Innovation	Shelter and Settlements Innovation (Local Building Culture solution approaches)	BALL ROOM - 02	Facilitator(s): Dr Shayer Ghafur Co-facilitator(s)/Presenter(s): Dr Catherine Daisy Gomes Satprem Maini Zubair Munir Shah Hashmi
				Shelter and Recovery Response	Multi Hazards	BALL ROOM -03	Facilitator(s): Arif Abdullah Khan; Dr. A.T.M. Mahbub-ul Karim Co-facilitator(s)/Presenter(s): Raquib Ahsan Mohammad Abu Sadeque Muhammad Awfa Islam
				Green, Resilient and Inclusive Development (GRID)	From climate mitigation to climate adaptation. Sustainable construction in the FDMN response	SURMA	Facilitator: Karolina Brach Co-facilitator(s)/Presenter(s): Fenella Henderson-Howat Dr. Farjana Jahan Sanzida Akter Md Tazammul Hossain Taz
				Cash and Markets	Shelter and Settlements enhancing local economy	MEGHNA	Facilitator(s): Md. Mostak Hussain Co-facilitator(s)/Presenter(s): Md Abdullah Al Mamun Alexander Tripura Johanes Juliasman Anjana Guru
17:15 - 17:45		30 min		Breakout Sessions - Summary by the facilitators, Feedback, and Close		Jamie Richardson, Mehul Savla	

Time	Session Ref	Duration	Session Type	Thematic Area	Session Details		Facilitator/Presenters
08:00 - 08:45		45 min		-	Breakfast & registration		
08:45 - 09:00	D2 - 1 Grand Ball Room	15 min	Plenary Presentations and Announcements	-	Welcome and Agenda for Day 2; Breakout Sessions announcement and instructions		Jamie Richardson
09:00 - 09:15		15 min		Shelter and Recovery Response	Housing recovery Nepal		Rameshwor Maratha and JS/MOUD
09:15 - 09:35		20 min		Shelter and Recovery Response	Flash Flood 2022 in Bangladesh		A K M Zahirul Alam; Tahmina Tamanna
09:35 - 09:50		15 min		Green, Resilient and Inclusive Development (GRID)	Disability Inclusion		Leeanne Marshall
09:50 - 10:00		10 min		Shelter and Recovery Response	Self Recovery Guidance		Sue Webb
10:00 - 10:10		10 min		Shelter and Recovery Response	Moving from Relief to Recovery		Arvin Hadlos
10:10 - 10:25		15 mins		Green, Resilient and Inclusive Development (GRID)	Sustainable Housing for Green, Resilient and Inclusive Development of Bangladesh: Initiatives from HBRI		Monjur Parvez
10:25 - 10:40		15 mins		Shelter and Settlements Innovation	Projects Of Department of Architecture, Ministry of Housing and Public Works		Karishma Shams
10:40 - 10:55		15 mins		Shelter and Recovery Response	Environment Friendly Shelter for Flood and Cyclone Affected Area		Kazi Amdadul Hoque
09:35 - 11:00	D2 - 2 Surma	85 mins	Parallel Session	ASF Future and Organization	ASF Future and Organization		Minar Thapa Magar, Sanjeev Hada, Robbie Doods, Ariel Sadural, Leeanne Marshall, Dave Hodgkin
11:00 - 11:30		30 min			Meeting participants over Tea		
11:30 - 13:00	D2 - 3	90 mins	Technical Sessions (Group Breakout)	Thematic Area	Breakout Sessions	Room Name	Jamie Richardson
				Coordination Mechanism and Local capacity	Tools and Experiences in Participatory Processes and Stakeholder Coordination for on-the-ground response to Shelter and Settlements	BALL ROOM - 01	Facilitator(s): Jia Cong Ang Co-facilitator(s)/Presenter(s): Kirttee Shah Krishna Prasad Dhital Aditya Singh
				Shelter and Settlements Innovation	Technical Solutions and Approaches	BALL ROOM - 02	Facilitator(s): Magnus Wolfe Murray Co-facilitator(s)/Presenter(s): Ram Sateesh Pasupuleti Markus Sprenger Björn Söderberg
				Shelter and Recovery Response	Community Based Approach and Self Recovery for Shelter and Settlements	BALL ROOM - 03	Facilitator(s): Sanjeev Hada, Dave Hodgkin Co-facilitator(s)/Presenter(s): Susannah Webb (Sue) Barsha Shrestha Md Abdullah Al Mamun Irin Murmu
				Green, Resilient and Inclusive Development (GRID)	Greening the Shelter Response	SURMA	Facilitator(s): Jamie Richardson Co-facilitator(s)/Presenter(s): A K M Zahirul Alam Mahavir Acharya Mohammad Abu Sadeque
				Cash and Markets	Cash and Markets intervention on Shelter & Settlements and recovery response	MEGHNA	Facilitator(s): Marshall Leeanne Co-facilitator(s)/Presenter(s): John Rezel Day Divya ChandL
13:00 - 14:00		60 mins			Discussion with Participants Over Lunch		Jamie Richardson
14:00-15:30	D2 - 4	90 mins	Technical Sessions (Group Breakout)	Thematic Area	Breakout Sessions	Room Name	
				Coordination Mechanism and Local capacity	Coordination Mechanism and Local Capacity on Shelter and Settlements Response	BALL ROOM - 01	Facilitator(s): Wahyu Widayanto Co-facilitator(s)/Presenter(s): Robert Doods Lionel Dosdos Sumeru Tripathiee Johanes Juliasman
				Shelter and Settlements Innovation	Innovation and Technical Approaches for Shelter and Settlements	BALL ROOM - 02	Facilitator(s): Md. Abdullah Al Mamun Co-facilitator(s)/Presenter(s): Arkadeep Roy Sheguftha Newaz Amit Tandon
				Shelter and Recovery Response	Multi Hazards	BALL ROOM - 03	Facilitator(s): Ariel Sadural Co-facilitator(s)/Presenter(s): Ms. Maria Concepcion Nobleza Hien Thi Nguyen Mazhar Mehmood Abbasi Magnus Wolfe Murray
				Green, Resilient and Inclusive Development (GRID)	Green and inclusive responses in Shelter & Settlement	SURMA	Facilitator(s): Ratan Podder; Mehul Savla Co-facilitator(s)/Presenter(s): Faria Binte Arif Mohammad Abu Sadeque Dabal Kaji Rokaha
15:30 - 16:40		70 min			Breakout Sessions - Summary by the facilitators		Jamie Richardson, Mehul Savla
16:40 - 16:50		10 min			Survey		Organizing Team
16:50 - 17:10		20 min			Discussion with participants over Tea		
17:10 - 17:20		10 min			Instructions for field trip		Tanmoy John D'Costa
17:20 - 17:45		25 min			Recognition of Contributing agencies' contribution and acknowledgement of Foreign participants by DDM		Dr. A.T.M. Mahbub-ul Karim
17:45 - 17:55		10 min			Closing Address		Mr. Md. Atiqul Haque, Director General, DDM, MoDMR
17:55 - 18:00		5 min			Group Photo Session		Organizing Team
18:00					Wrap up		

C. Budget Expenditure and Income Details

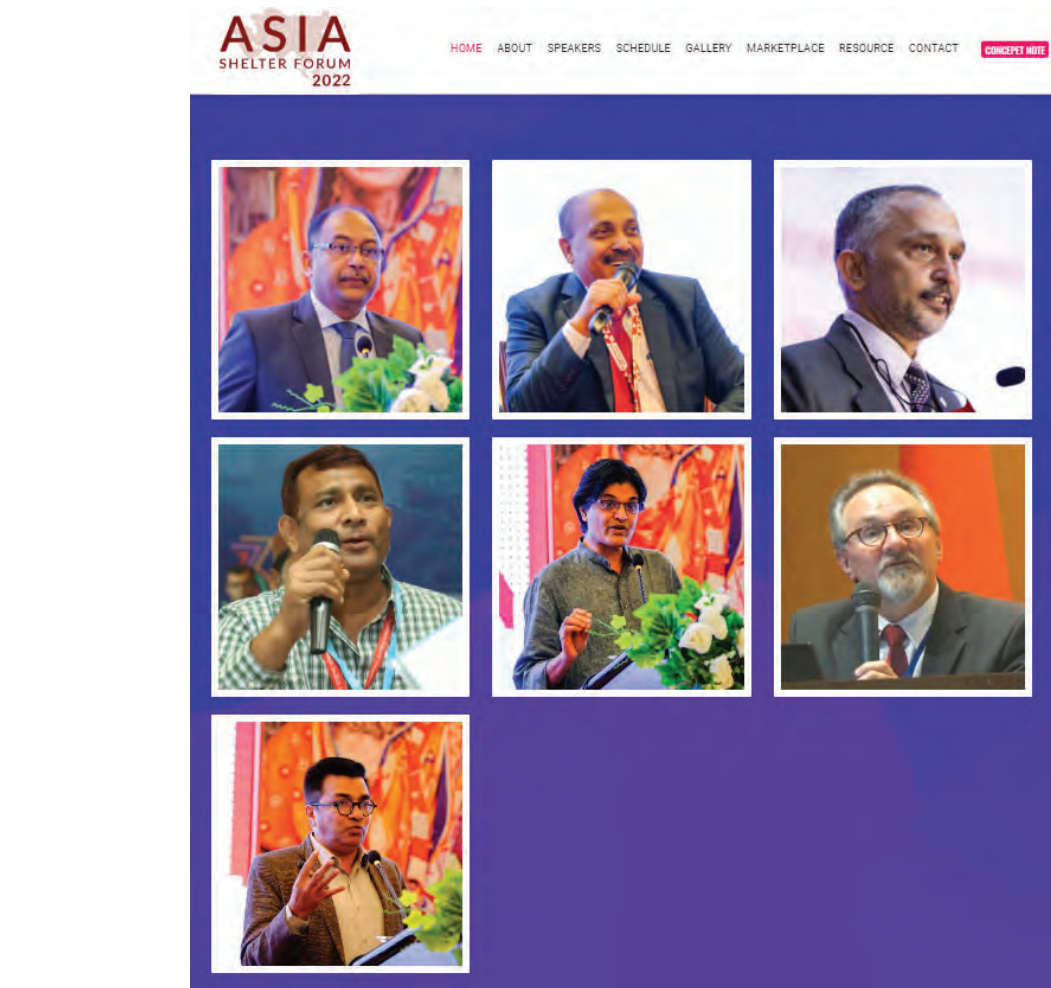
The total expense of 94,145 US\$ was made to organize the Asia Shelter Forum 2022.

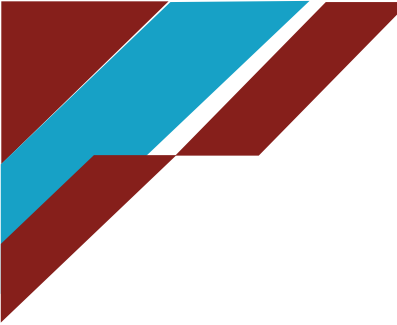




D. DDM Website







E. ASF 2022 in Photographs





Different Sessions



Different Sessions



Market Stalls



Market Stalls



Group Photos



Field Visit to Ashrayan Project, Faridpur





Website : <http://www.shelterforum.info/category/asia/>

Facebook: <https://www.facebook.com/asiashelterforum>



Short Video on the Asia Shelter Forum 2022

<https://drive.google.com/file/d/1MUxbRMBsuGMxKsgoCyCD7KkEdukLObt0/view?usp=sharing>